DOCUMENT RESUME

ED 199 075 SE 034 409

TITLE	Study of the Contribution of Population Education to Educational Renewal and Innovation in El Salvador, The Republic of Korea, Philippines and Tunisia. Co-ordinated Action Programme for the Advancement of Population Education (CAPAPE).
INSTITUTION	United Nations Educational, Scientific, and Cultural Organization, Paris (France). Population Education Section.
PUB DATE	80
NOTE	196p.
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Adult Education; Case Studies; *Developing Nations; *Educational Innovation; Elementary Secondary Education; Environmental Education; Interdisciplinary Approach; *Population Education; *Program Descriptions; *Program Evaluation

ABSTRACT

Presented are four national case studies carried out by the Population Education Section of the United Nations Educational, Scientific, and Cultural Organization (Unesco). Designed to assess the effects of population education programs on the educational process, these research projects focused on El Salvador, The Republic of Korea, Philippines, and Tunisia. Discussed in each case study are the program's organization, objectives, activities, teacher education efforts, research strategies, and characteristics of the country's population. Conclusions address the program's effects upon students, teachers, curricular content, and instructional methodology. (WB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Co-ordinated action
programme for the advancement
of population education

(CAPAPE)

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY
Susanne Adlung
of the Unesco Press
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED199075

Study of the contribution of population education to educational renewal and innovation in El Salvador, The Republic of Korea, Philippines and Tunisia

SE 034 409

POPULATION EDUCATION SECTION
Division of Equality of Educational
Opportunity and Special Programmes

Published in 1980
by the United Nations Educational
Scientific and Cultural Organization
7, Place de Fontenoy, 75700 Paris

Composed by I.T.C. S.A. Paris
Printed in the workshops of Unesco
© Unesco 1980
Printed in France

GENERAL TABLE OF CONTENTS

Pages

PREFACE 5

INTRODUCTION 7

EL SALVADOR 11

REPUBLIC OF KOREA 53

PHILIPPINES 95

TUNISIA 153

CONCLUSION 201

PREFACE

The present publication falls within the framework of the aims set out earlier by the "International Study of the Conceptualization and Methodology of Population Education" (ISCOMPE) (1). Broadly speaking, these aims which constitute a mandate for Unesco are concerned with both the continuous improvement of knowledge about population problems and its utilization in educational activities to foster a broad range of goals beneficial to society.

This document which brings together four studies conducted more or less at the same time in El Salvador, the Philippines, the Republic of Korea and Tunisia to illustrate, through these specific case studies, the "Contribution of Population Education to Educational Innovation and Renewal" which is one of the activities implemented in the context of an interregional project : the "Coordinated Action Programme for the Advancement of Population Education" (CAPAPE).

This work was undertaken as part of the activities planned under the Approved Programme and Budget of Unesco for 1977-1978 (Project 1.141.6) with the financial assistance from the United Nations Fund for Population Activities (UNFPA) and carried out under the administrative and professional responsibility of the Population Education Section of the Organization. For this purpose, Unesco's Secretariat provided the research guidelines to the international and national specialists working in the field with a view to facilitating subsequent comparisons wherever possible and drawing attention to the specificities, the similarities and differences between the national activities considered.

It is hoped that the present publication, which lays emphasis on pedagogical innovations and which is also being published in French and Spanish, will be of interest to all those involved in the educational milieu, both in the formal and non-formal education including all the educational personnel concerned : teachers at all levels, specialists in curriculum development and educational methods and materials, personnel of research and training institutions and administrators - including their respective proffessional organizations, and the decision-makers who, in the final analysis, determine educational policies at national levels.

We express our thanks to all the members of the national teams and Unesco consultants who took part in this collective work - and made it possible, for the enthousiasm and professional competence with which they participated throughout all the stages of this common endeavour. Our thanks go specially to :

in the case of *El Salvador*, the national team composed of the personnel of the Directorate of Educational Services of the Ministry of Education and those of the Directorate of the National Family Education Programme and its Director, Mr. José Oscar Ramirez-Pérez ; as well as Mrs. Rhina de Mata and Mr. José Ernesto Urbina, who assisted the Unesco consultant Mr. Jorge Chavez (Colombia), and finally Mrs. Lucila Pagliai (Argentina) who prepared the final version of the study ;

in the case of *the Philippines*, the members of the national team : Mrs. Remedios M. Cayari, Chief Executive Officer, Population Education Programme, Department of Education and Culture, Mrs. Mendoza, Head of the Curriculum Section and Mrs. Dughenia, Head of the Training Section who worked in cooperation with the Unesco consultant, Professor J.E. Jayasuriya (Sri Lanka), former Regional Advisor in Population Education to the Regional Office for Education in Asia and Oceania, Bangkok ;

in the case of *the Republic of Korea*, the national team composed of Mr. Kuk Bom Shin, Director, Population Education Programme, Ministry of Education and his colleagues who assisted Professor J.E. Jayasuriya; and finally Mrs. Abigail Krystall (U.S.A.), presently at the University of Nairobi, Kenya, who worked as consultant to the Population Education Section at Unesco Headquarters on the final versions of the Philippine and Korean studies ;

in the case of *Tunisia*, the national team composed of Mrs. Dordana Masmoudi, Attaché to the Executive Office of the Minister of Education and Director of the national team responsible for the Population Education Project as well as the other members of the team - Miss. Naïma Kochtane, Mr. Heidi Bouhouch, Mr. Abdel-Hafidh Mejri and Mr. Tahar El Amouri, Educational Advisor, as well as the Regional Delegates, the Heads of Educational Institutions and teachers who participated in the collection of data and who worked closely with Mr. Raymond Lallez, Maître de conférences and Director of the Centre de Recherche en Education et de Formation Pédagogique in the Ecole Normale Supérieure of Saint-Cloud (France).

The opinions expressed are those of the participants in the study and do not necessarily reflect the views of Unesco. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatever on the part of the Unesco Secretariat concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitation of its national frontiers.

---

(1) The final report of which was published by Unesco in Educational Studies and Documents, N°28. *Population Education : a Contemporary Concern*, Unesco, 1978.

INTRODUCTION

Before examining the contents of the study presented here, in terms of its relevance to the present circumstances and appropriateness of the phenomena discussed, the observations made and the origin of the extrapolations suggested or possible, a brief reference to *population education* may not be out of place. Indeed, this study will acquire its full significance only when it is examined in the context where it took its roots and developed. Although, in general terms, the context remains basically the same, population education continues to evolve, to improve and to become altered in the light of both quantitative and qualitative changes which appear sometimes to clarify and at other times to confuse the initial concept. A return to the source thus appears justified.

Very briefly then, what are the origins of population education and what does it consist of? First of all one could say that it emerged from an almost universal awareness of the importance of population phenomena in the world today - whether it be a question of slow or rapid population growth, migration or urbanization. It is essentially an *educational response* to today's economic, social and demographic problems.

Although it is demographic in its substance, population education is deeply rooted in education and wedded to its general processes. It is therefore important to examine the educational base, and first the field in which the germination and development of population education takes place.

As an innovation, population education had to face a certain number of impediments, filters and obstacles along its path ; there were indeed many of them: One even feared that from the very beginning, population education was being directed towards a dead end. Fortunately, this educational process has an inbuilt quality of endowing those involved in the process with the kinds of tools that will help them understand the various aspects of a given phenomenon. In addition, the process related to the utilization of these tools does not stop at comprehension i.e. analysis, but is also equally well adapted to synthesis i.e. the *reproduction of phenomena* and their application, by modifying them whenever necessary, to an infinite number of situations and activities. Population education uses these powerful tools to the extent that it aims to expose the learner to the outside world by providing him with the intellectual means necessary to comprehend and prepare himself for it. Indeed, it aims to help the learners - whether they be school children or an adult public - to define and understand the nature, causes and consequences of demographic phenomena and their interrelationships with the realities of social, economic and cultural development.

"Translated into pedagogical terms, population education should allow learners to acquire the knowledge, abilities, attitudes and values necessary for the understanding and evaluation of the prevailing population situation, the dynamic forces that have shaped it, and the effects that it will have on present and future quality of life" (1) ; to take informed and responsible decisions based on their own assessments and to participate in collective decisions which help promote social progress. Population education calls for the most objective possible teaching-learning situation in which the teacher will offer the learner a set of facts and values that will allow him to evaluate the whole range of options with respect to a given problem.

One of the goals of population education is to contribute to the development of a participatory methodology and to the relevance of curriculum content. In fact, this content includes issues such as demographic dynamics, the production and distribution of goods, social justice, the improvement of the quality of social and cultural life, the environment, health, nutrition, human sexuality and intrafamilial relations. The interdisciplinary character of this approach is reflected in the content of population education and its teaching methods.

These considerations taken in a general context give rise to very few objections. The opposite is true when one discusses with the help of figures the present and future demographic situations. Statistics and data are frequently contested, the debate bearing on the choice of data and their interpretation. One can only refer briefly to this debate : "Today, opinions range along a time-honoured continuum from those people who see population growth as a crisis, as *the* primary cause of all other social problems, to those who seek to encourage population growth to help solve social problems.

There is no lack in the diversity of positions. Some contend that population is a false issue, fostered by wealthy industrialized nations to divert attention from problems faced by developing nations ; the real problem, they say, is not population growth - "the population problem" - but the maldistribution of wealth and resources, the lack of integrated economic development, over-consumption and the affluent life-style of many industrialized nations which may pose a more direct threat to the preservation of environment and resources than the higher population growth rates of the developing nations" (2). Another approach came into the limelight during the World Population Conference organized in 1974 by the United

---

(1) "Co-ordinated Action Programme for the Advancement of Population Education" (CAPAPE), *Socio-Cultural Case Studies for Population Education*, Research Outline, Unesco 1978 (ED-79 / WS / 24), page 32.

(2) Educational Studies and Documents (ESD) N° 28. *Population Education : A
Contemporary Concern*, ISCOMPE, Unesco 1978, page 11.

6

Nations at Bucharest. The Conference focused its debates, without however, limiting itself to it, on the correlation between population and socio-economic development and proposed a "World Population Plan of Action" based on a certain number of principles or hypotheses, such as for example that "the economic relationships between industrialized and developing nations" constitutes "the basic cause of unequal economic development" (1) or that it is indispensable to undertake coordinated "action in all major socio-economic fields including that of population" (2). In this context, the demographic problem becomes *one* of the aspects of socio-economic development at the level of the society, of the family and of the individual, and population education *one of the tools of action* at these levels and in the milieu concerned.

It is indeed only one of the tools but the one for which, at the international level, Unesco is responsible for the preparation and execution of programmes. That is why, assuming full responsibility in this field, the General Conference of Unesco at its 15th session entrusted the Secretariat with the task of carrying out an important programme concerning population issues in the Education, Social Sciences and the Communication Sectors. Since 1971, an inter-sectoral programme has been developed - financed by both the Regular Budget of the Organization and by extra-budgetary resources provided by the United Nations Fund for Population Activities (UNFPA) - within which the Education Sector is responsible for developing a multi-faceted programme aimed at "the improvement of knowledge relating to population problems and particularly to the causes and consequences of human behaviour in this respect" (3), and "the extension of educational activities conducive to a better understanding of the part played by population phenomena in the development of societies" (4).

At Headquarters, it is the task of the Population Education Section to carry out and coordinate a series of projects at *national, regional and inter-regional levels* ; to promote, develop and strengthen - both in school and in out-of-school education - interdisciplinary programmes related to population issues, and to undertake research and studies aimed at the advancement of population education on a world wide basis with a view to economic, social and cultural development, and the promotion of respect for cultural identity and human rights.

Unesco's action in the field is naturally carried out through the Regional Offices for Education in Africa (Dakar), in Latin America and the Caribbean (Santiago), in Asia-Oceania (Bangkok) and in the Arab States (Beirut), and the *mobile teams on population education* working in close cooperation with the Member States. The actions of the Regional Offices are supported by the Educational Innovation Networks operating either autonomously or within the institutional structures of the Offices (5).

One of the studies undertaken by the Population Education Section at Unesco Headquarters which is often quoted, deserves a brief reference. Although it constitutes only a first step in terms of the chronological evolution of population education, it is nevertheless a landmark. We will examine shortly the direction followed since. The study referred to is the "*International Study of the Conceptualization and Methodology of Population Education*" (ISCOMPE), the final report of which was published under the title "Population Education : A Contemporary Concern". The objectives of this study were to clarify through analyses, the basic concepts as well as the methodology of this new educational endeavour and to formulate suggestions for a programme in this area which would be both educational and research oriented.

Based on the recommendations of ISCOMPE and on the felt needs of the countries which had already set up programmes in this domain, the Population Education Section, once again with the financial participation of UNFPA, launched at the end of 1977 an inter-regional "*Co-ordinated Action Programme for the Advancement of Population Education*" (CAPAPE). This project, which is operational in the sense that it was carried out through field studies, aims to support national endeavours in this area seeking international cooperation, consists of several studies. The first series includes socio-cultural studies focusing on the informal processes involved in the acquisition of knowledge, and on the attitudes, values and beliefs of children and adults towards population related issues ; the original contribution of the studies - which will be published in 1980 by Unesco - lies in their practical goal : *the drawing up of educational programmes* relating to population issues and *teacher training* activities. The second series consists of *case studies* undertaken in El Salvador, the Philippines, the Republic of Korea and Tunisia.

These four case studies have been brought together in the present publication. This long deviation or rather the attempt to retrace the path leading to these four case studies was intended to recapitulate the perspectives and the background of these national experiences. One of the merits, and not the least important, of these national experiences is that they were launched and sustained.

Just as ISCOMPE gave rise to CAPAPE, this project, as suggested by its title, includes a number of research activities, one of which is the "*Study of the Contribution of Population Education to Educational Innovation and Renewal*". The present case studies constitute the result of this endeavour.

The tasks of the national teams and the consultants engaged by Unesco could have been limited, for example, to the factual description of population education policies in the four countries. The number and quality of the observations recorded would not have failed to sustain interest in the study. Such a descriptive study would have allowed very useful comparisons. Going one step further, the consultants could have been asked, in addition to giving such descriptions, to refer to qualitative and quantitative assessments of the means employed and the results obtained. In either case, the description, analysis and assessments would have been limited and confined to population education only. But by defining as the objective the "Study of the Contribution of Population Education to Educational Innovation and Renewal" we deliberately set ourselves a difficult task. The reason behind this choice was simple : the results of the study would be all the more significant if it was undertaken at a higher level. If one recalls what we have mentioned earlier, namely the "natural" resistance of the milieu to changes in attitudes and behaviours, one understands better the scope of a project which postulates that population education, even in the initial phase of its development, can already contribute to educational innovation and renewal.

---

(1) U.N. Report of the World Population Conference (Bucharest) 1974, page 4.

(2) *Ibid.* page 3.

(3) Resolution 5.21, 18th session of the General Conference.

(4) Resolution 1.141, 19th session of the General Conference.

(5) CODIESSE (Sub-regional mechanism for the Development of Educational Innovation in the South East regions), Europe ;
RED (Network of Education for Development), Guatemala City ;
CARNEID (Carribean Network of Educational Innovation for Development), Barbados.
APEID (Action Programme of Educational Innovation for Development), Bangkok ;
NEIDA (Network of Educational Innovation for Development in Africa), Dakar ;
EIPDAS (Educational Innovation Programme for Development in Arab States), Beirut.

The study involved other secondary implications of a complex nature which the consultants had to take into account. For example, it was understood that the "Study of the Contribution of Population Education to Educational Innovation and Renewal", in each case, would examine the various factors of the educational process : content, curricula, methods and personnel training. Furthermore, after having assessed the role of population education in the educational process, the study would focus on examining the ways in which, given its innovative aims, population education can contribute to socio-economic development and to the attainment of one of the important goals of the United Nations, the *establishment of a new international economic order.*

The four case studies presented hereunder were carried out in the framework of the national situations of the countries concerned. They cannot, therefore, be identical but they are complementary to each other. The studies out the successes achieved with respect to one or the other aspect and specially, the ways and means leading to success ; one can also note with equal objectivity the various problems which remain to be solved (pedagogical, epistemological, cultural, axiological, etc.). This means that the intellectual effort which sustains this study should be continued.

Besides, this study as we have mentioned earlier, is only one part of a programme which includes other activities. This reiteration is not intended to discourage the reader from appreciating the value of the present publication. Rather, it is intended to call his attention to previous publications and encourage him to take an interest in them. It has become evident today, more than ever before that whatever be its nature, the educational endeavour is not limited to a classroom teacher-learner relationship, but benefits from the enrichment that it can get from every quarter. It is hoped that this publication on the "Study of the Contribution of Population Education to Educational Innovation and Renewal" will also bring its contribution to this movement.

A study of the contribution of population education and family education to educational renewal and innovation in El Salvador

Study carried out with the collaboration of Mr. J. Chaves and Mrs. L. Pagliai, consultants

Population Education Section
Unesco, Paris

TABLE OF CONTENTS

INTRODUCTION 17

CHAPTER 1 : THE DEMOGRAPHIC, ECONOMIC, CULTURAL AND EDUCATIONAL CHARACTERISTICS OF EL SALVADOR 19

1.1. Population Characteristics 19
1.1.1. Density, Growth, Projections 19
1.1.2. Composition 20

1.2. Economic Characteristics 21

1.3. The Socio-Cultural Situation 23

1.4. Educational Situation 23
1.4.1. Structure of the Educational System 23

CHAPTER 2 : THE FAMILY EDUCATION PROJECT 25

2.1. The Development of the Project : the three stages 25
2.1.1. The Family Education Committee 25
2.1.2. The Initial Institutional Set-Up of the Project (1974 - 1975) 25
2.1.3. The Revision and Reorganization of the Project (from 1976 to present) 26

2.2. Technical and Financial Assistance for the Family Education Project 27

2.3. The Aims and Ultimate Purpose of the Family Education Project 28

CHAPTER 3 : THE FAMILY EDUCATION PROGRAMME IN THE EDUCATIONAL SYSTEM IN EL SALVADOR 29

3.1. Basic Education 30
3.1.1. The Integration of Family Education Elements into the Curriculum 30
3.1.2. Design of the "Study Units" for Family Education 32

3.2. Secondary Education 32
3.2.1. Integration of Family Education into the Common Core Subjects 28
3.2.2. The Integration of Family Education into the Vocational Subjects 35

3.3. Adult Education 36
3.3.1. Accelerated Basic Education 37
3.3.2. Functional Education 42
3.3.3. Adult Rural Vocational Training 42

CHAPTER 4 : ANALYSIS OF THE INNOVATIVE CONTRIBUTIONS OF FAMILY EDUCATION 45

4.1. Theoretical Formulations : the Concept of Family Education 45

4.2. The Programmes : Content and Methodologies 45
4.2.1. Demography 45
4.2.2. Ecological Studies 45

4.3. Teacher Training 46
4.3.1. The Training Workshop : Major Activities 47

4.4. Teaching Materials 48
4.4.1. Educational Games 48
4.4.2. Textbooks 48
4.4.3. Reference Materials 48

4.5. Contributions to the Development of School Life 49

CHAPTER 5 : CONCLUSIONS 50

5.1. The Population Groups Benefitting from the Programmes 50

5.2. The Effectiveness of the Activities Undertaken so far 50

TABLES AND FIGURES

Pages

Table 1 Total Population (Urban and Rural) between 1950 and 1975 19

Table 2 Total Population Growth 1950 - 1975 19

Table 3 Natality and Mortality Rates 1960 - 1976 20

Table 4 Projection of Male and Female Population, 1950 - 2000 20

Table 5 Total Urban and Rural Population, 1950 - 1975 20

Table 6 Life Expectancy at Birth, 1950 - 1970 21

Figure I Population Pyramid for El Salvador on the Basis of Census Data 22

Table 7 Absolute and Relative Figures of Total Literate and Illiterate Population (1950 - 1975) 23

Figure II Structure of El Salvador's Educational System 24

Table 8 Organigram of the Project 26

Table 9 Areas Covered by the Social Studies Syllabus in Basic Education 30

Table 10 "Bachillerato" Courses 33

Table 11 Areas and Topics of Study in the Biological Sciences 33

Table 12 Draft Biology Syllabus for Grade 1 of the "Bachillerato" Course 34

Table 13 Ecological Studies Syllabus : Areas of Study and Units 36

Table 14 Demography Syllabus for Grade 3 of the Academic "Bachillerato" 37

Table 15 Accelerated Basic Education - First Cycle 38

Table 16 Basic Education Curriculum for Adults 39

Table 17 Modules for the "Health" Centre of Interest for the lst, 2nd and 3rd Levels of Adult Basic Education, According to the Points of Reference Defined for Each Level 40

Table 18 Module C - "The Pollution of the Environment Affects the Health of the Community" - 2nd Level of Adult Education 41

Table 19 Preliminary Comprehensive Outline of the Specific Situation of Two Communities : Cerro de Plata and Flor Amarilla 43

Table 20 Development of the Rural Vocational Training Project 44

Table 21 Main Forms of Action Developed by the Family Education Project 51

INTRODUCTION

The aim of this study is to describe the process of integrating *Population Education* (1) into the educational system of the Republic of El Salvador, setting out the objectives of population education, the modes of implementation and the significant contributions made by this new approach to the renewal of education as a whole.

For this purpose, the study will present :

a) *a brief profile of the demographic, socio-economic and cultural situation in El Salvador* over the past few decades, having regard to the fact that this has served as a framework of reference for the formulation of increasingly functional development plans ; for the design and gradual implementation of an integrated population policy ; the development of effective educational reform, which is broader in scope and also reflects a qualitative improvement ; and for the enrichment of the school curriculum through the introduction of the new content and methodologies proposed under the Family Education Project (family education being the title which the authorities and experts in El Salvador decided to give to the various population education activities undertaken in the country) ;

b) *a description of the successive stages of the project* from its inception in December 1971 to July 1978 ;

c) *an analysis of the strategies for the introduction* of population education contents in the formal and non-formal educational systems ;

d) *an identification of the innovations* which the various Family Education programmes have brought about or strengthened in the field of national education, in terms of both academic and institutional structures ;

e) *an evaluation of the degree of acceptance of the project* by all those connected with education and by the population at large.

A number of *terms* used in the study call for explanation.

a) *Innovation* means any considered attempt to improve practice in relation to desired objectives (2). This concept, used synonymously with *renewal* or *renovation* throughout this study, implies planning and change. When the innovation concerns the entire system, we may speak in terms of a *reform.*

b) The term *contribution*, as applied to the contribution made by population education to educational renewal, has different levels of reference : depending upon the degree of development achieved, it may mean anything ranging from a theoretical proposal to an experimental programme or a component which has been firmly incorporated into the educational process.

The *material* used in the study has been drawn from two sources : from *analysis of different reports and documents* and from *contact with those responsible* for the various stages of development of the *Family Education Project.*

---

(1) The introduction of population education into the Salvadorian educational system was put into effect through the Family Education Project.

(2) Cf. Centre for Educational Research and Innovation. *Case Studies of Educational Innovation.* "IV Strategies for Innovation in Education", 1973, pages 12 and 33 to 37.

CHAPTER 1

THE DEMOGRAPHIC, ECONOMIC, CULTURAL AND EDUCATIONAL CHARACTERISTICS OF EL SALVADOR

El Salvador is the smallest republic in the Central American isthmus. It has a total area of 21,000 sq km. The main topographical features of the country are mountains, volcanos and high plateaus. Coastal plains, a mere 12 % of the total land area, border the Pacific Ocean ; El Salvador, which enjoys a tropical climate, is the only Central American country which has no Caribbean shore.

1.1 POPULATION CHARACTERISTICS

1.1.1. Density, growth, projections

El Salvador is the most densely populated Central American country. The most recent census figures show a density increase from 88 people per square kilometre in 1950 to 197 in 1975. The problems caused by this situation are aggravated by an uneven distribution of population. Heavy internal migration is mainly responsible for large concentrations of families in the metropolitan region centred around the capital *San Salvador*. (This is also true of *Santa Ana* and *San Miguel*, two large urban centres respectively situated in the west and east of the country.) The 1971 census showed that the metropolitan region had a density of 828 inhabitants per square kilometre.

The *population growth* figures are also significant : the population of El Salvador practically doubled between 1950 and 1971 (see tables 1, 2 and 3).

In essence, two factors account for such extraordinary growth :

a) High *natality rate*, which has been very slow to decline. On the other hand, fertility is early (a large percentage of mothers are under 20) and a considerable number of women bear children after the age of 45.

b) A significant drop in *mortality rate*, which has been decreasing at a pace similar to that observable in highly developed countries.

Table 1 : *TOTAL POPULATION (urban and rural) BETWEEN 1950 AND 1975*

Year	Total	%	Urban	%	Rural	%
1950	1,855,917	100.0	677,167	36.5	1,178,750	63.5
1961	2,510,984	100.0	966,899	38.5	1,544,085	61.5
1971	3,554,648	100.0	1,405,532	39.5	2,149,116	60.5
1975	4,094,039	100.0	1,649,349	40.3	2,444,690	59.7

SOURCES : Censuses (1950, 1961 and 1971).
National Manpower and Population Survey (1975).

Table 2 : *TOTAL POPULATION GROWTH (urban and rural) : 1950-1975*

Period	Total	%	Urban	%	Rural	%
1950-61	655,067	35.3	289,732	42.8	365,335	31.0
1961-71	1,043,644	14.6	438,633	45.5	605,031	39.2
1971-75	539,391	15.2	243,817	17.3	295,574	13.0

SOURCES : Censuses (1950, 1961 and 1971).
National Manpower and Population Survey (1975).

Table 3 : *NATALITY AND MORTALITY RATES (general and infant) : 1960-76*

Year	Natality (1)	Mortality	
		General (1)	Infant (2)
1950	48.5	14.7	--
1960	46.5	11.0	76.3
1965	46.9	10.6	70.6
1970	40.0	9.9	66.6
1975	40.1	8.0	58.2

(1) Per 1,000 inhabitants
(2) Per 100 live births

SOURCE : National economic and social development plan for 1965-69.
El Salvador en Cifras, D.G.E.C. 1977.

The Population and Human Resources Unit (UPYRH) of the Ministry of Planning and Co-ordination for Economic and Social Development, the Department of Statistics and Censuses (DIGEESTYC) of the Ministry of the Economy and the Latin-American Demographic Centre (CELADE) have prepared projections for the total population of El Salvador, on the basis of *four hypotheses* involving a constant, low, medium and high *gross reproduction rate* (GRR).

Taking the present population structure, fertility trends and the projected GRR decreases, the four hypotheses would give the following figures for the year 2.000 :

I - Constant rate : 10,717,000 inhabitants
II - Low rate : 7,945,000 inhabitants
III - Medium rate : 8,803,000 inhabitants
IV - High rate : 10,115,000 inhabitants

It is the view of the UPYRH that real population behaviour in El Salvador for the rest of the century should fall between hypotheses II and III, and these figures are currently used in the formulation of development plans for the country (table 4).

Table 4 : *PROJECTION OF TOTAL MALE AND FEMALE POPULATION ; 1950-2000 (hypothesis III)*

Year	Total	Male	Female
1950	1,855,917	918,469	937,448
1960	2,574,349	1,293,842	1,280,507
1965	3,004,626	1,511,048	1,493,578
1970	3,583,051	1,804,155	1,778,896
1975	4,210,400	2,119,960	2,090,400
1980	4,958,631	2,496,630	2,462,001
1985	5,819,591	2,930,841	2,888,750
1990	6,784,166	3,417,916	3,366,250
1995	7,862,516	3,963,330	3,899,186
2000	9,076,528	4,577,465	4,497,063

SOURCE : Population census and UPYRH studies.

1.1.2. Composition

El Salvador has a predominantly rural population despite heavy migration from the country to urban centres.

Table 5 shows how the population figures altered between 1950 and 1975.

It has become difficult to draw a clear distinction in population terms between the typically urban and the typically rural, in view of such factors as migration from country to town, the development of communications and the extension of the electricity services. Many peasant families enjoy the customary advantages of city life, while there are city-dwellers who still live below the level generally associated with the urban way of life. This situation is partly due to the disorganized process of urbanization from which the country, and the capital in particular, is suffering.

El Salvador has an extremely young population : the base of the population pyramid grows wider with each census, which means that the population is continually becoming younger (figure 1).

However, the population of persons over 65 years of age has risen very slightly, from 2.9 % in 1960 to 3.2 % in 1970. At the same time, life expectancy among the population is constantly increasing (table 6).

Table 5 : *TOTAL URBAN AND RURAL POPULATION ; 1950-75 (difference)*

Year	Total	%	Urban	%	Rural	%	Difference	%
1950	1,855,917	100	677,167	36.5	1,178,750	63.5	501,587	27.0
1961	2,510,984	100	966,899	38.5	1,544,085	61.5	577,186	23.0
1971	3,554,648	100	1,405,532	39.5	2,149,116	60.5	743,584	21.0
1975	4,094,039	100	1,649,349	40.3	2,444,690	59.7	795,341	19.4

SOURCES : Censuses
National Manpower and Population Survey (1975).

Table 6 : *LIFE EXPECTANCY AT BIRTH*
(by sex) 1950-1970

Period	Life expectancy (years)		
	Total	Men	Women
1950-55	46.7	45.6	47.8
1955-60	49.6	48.4	50.9
1960-65	52.9	51.4	54.3
1965-70	56.0	54.5	57.5

SOURCE : The population of El Salvador by sex and age in the period 1950-2000, Ministry of Planning and Coordination for Economic and Social Development, and Ministry of the Economy, Department of Statistics and Censuses.

1.2. ECONOMIC CHARACTERISTICS

The economy of the country may be divided into two major sectors : an export-geared economy and a subsistence economy. Both sectors are based on raw materials obtained from agriculture and cattle-farming, and land tenure is so concentrated that income derived from them benefits the landowner or businessman and not the peasant-producer.

Rapid population growth has given rise to an abundance of poorly trained or unskilled labour, for which there is insufficient opportunity for work. In many cases, people are forced to work for wages that barely provide for subsistence. This situation produces both a serious deterioration in the man-land relationship and a growing *underemployment* which is essentially reflected in terms of the *length of time of work, wage-levels* and the *poor quality or complete lack of vocational training.* The first form of underemployment is seen in connection with the harvests which provide individual workers with temporary employment, although labour is permanently available. Secondly, there is such a surplus of unskilled workers that many of them are paid wages at rates which are below the prescribed minimum. The third form of underemployment is the outcome of a lack of technical and vocational training institutions.

Coffee, sugarcane and *cotton* have traditionally been the mainstay of El Salvador's economy and account for its internal and external dependence. The economy is internally dependent in the sense that the three crops are harvested at practically the same time and the harvesting - which is the biggest source of wage-earning - is mostly controlled by large agribusiness concerns. The economy is externally dependent since the prices of these products are related to the trends of the international market.

In the sixties, the then incipient process of industrialization speeded up when the "Central American Common Market" (1) was established with a view to organize and promote exports to the area. Foreign investment in industry (particularly in manufacturing industry) was also favourably regarded at the time.

The new industry - centred around the importation of technology, availability of cheap labour and provision of fiscal facilities for investors - began to show signs of saturation around 1967, leading to a sharp decline in small industrial enterprises and a certain recession among medium-sized and large concerns.

1.3. THE SOCIO-CULTURAL SITUATION

El Salvador has an extremely homogeneous population without any significant ethnic minorities : the pre-Colombian indigenous nation - los pipiles - which was defeated after putting up a fierce battle of resistance, fully mixed little by little with the Spanish conquistadores starting from the second quarter of the XVIth Century, and no large-scale immigration by other peoples subsequently occurred. The relatively peripheral position of El Salvador in relation to the major international centres - dating back to the colonial era - has also contributed to the uniformity of the population.

The prevailing religion is Roman Catholicism. In terms of the relations between the people and the church, it may be noted that various tendencies are noticeable at present as in almost all the countries of Latin America.

From the socio-cultural point of view, the influence of different "models" has been felt in the country : Spanish initially, then French and currently North American. Although there is already evidence of a general reaction against the continued imitation of such models from outside, leading to a new appreciation of national forms of cultural expression - the "taste for modern living" (the synonym of "progress", "well-being", "abundance", "privileged status") has become firmly implanted in the new class spawned by the process of industrialization, whose members have neither special links with European culture nor do they find any use for their own national or regional culture.

Generally speaking, aesthetic expressions (music, plastic art, literature) are the product of the influences which vary from one period of history to the other, but, however, they retain their value in the national context.

Population pressure and lack of suitable employment opportunities have produced a kind of "social category" in relation to migration : the peasant out-migrates to the small urban centres ; the inhabitants of these centres out-migrate to San Salvador ; the inhabitants of the capital (who have attained a certain educational level) emigrate generally to the United States.

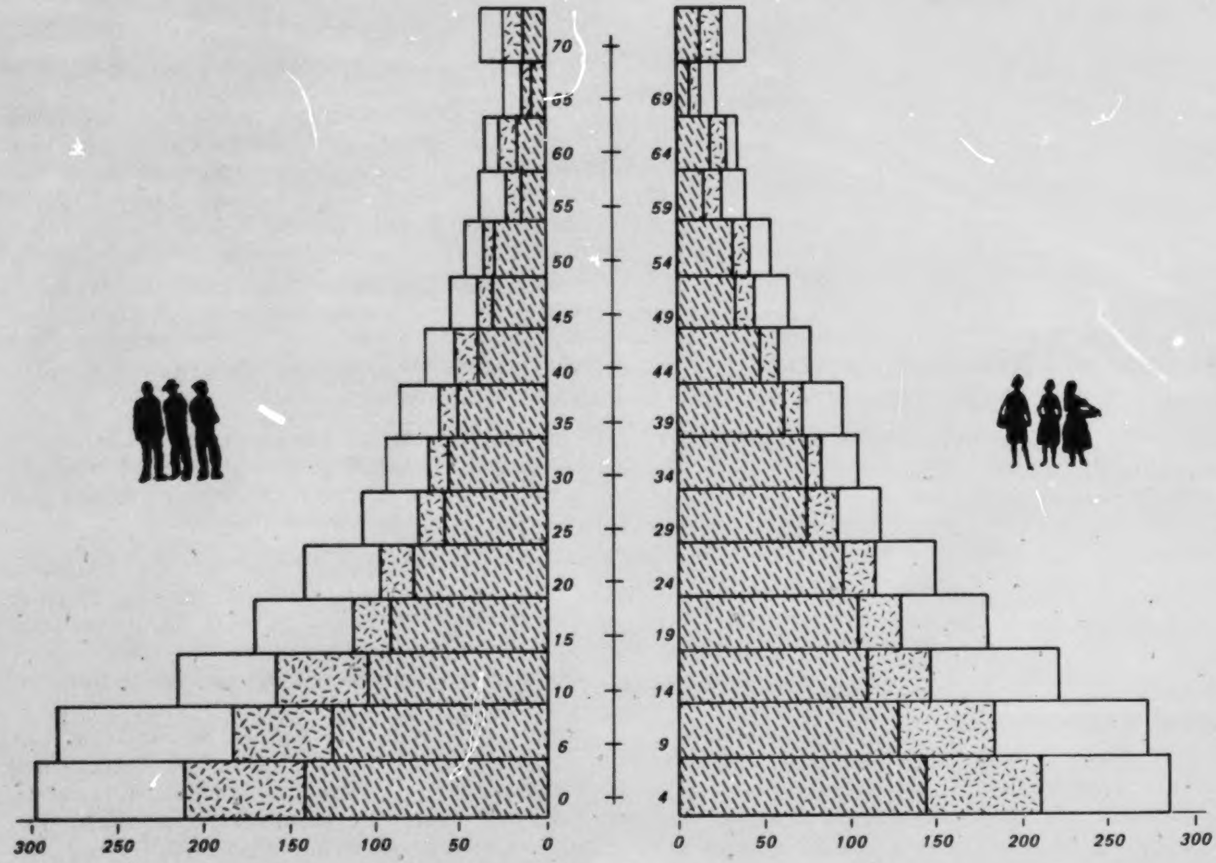
---

(1) Although this attempt was limited to the economic field, it is interesting to note that historically, this was not the first time that El Salvador appeared as a promotor of some kind of Central American Unity : in 1823, it became a federating state giving birth to the "United Provinces of Central America" (Guatemala, El Salvador, Honduras, Nicaragua and Costa Rica) which lasted 15 years. Disappointed after various attempts to revive the Confederation, El Salvador declared itself an independent Republic in 1859.

FIGURE 1

POPULATION PYRAMID FOR EL SALVADOR ON THE BASIS OF CENSUS DATA

1950 – 1961 – 1970



Illiteracy is a grave problem, particularly among the peasants : educational backwardness among the rural population is such that only one in ten members of the productive community may be regarded as fully literate (1). The highest population growth also occurs in this sector of the population. Seasonal work and the internal migrations necessitated by the harvests also result in high dropout rates among schoolchildren.

This subject is so important in the context of this study that we shall examine it separately in the following section.

1.4. EDUCATIONAL SITUATION

In view of the accelerated rate of growth of the population and, consequently, of the school-age population, there has to be constant adjustment of the educational system in order to respond to needs. In 1978, *preschool education* was provided for 15 % of the population of the appropriate age group (4-6 years) ; *basic education* was provided for 80 % of the appropriate age group (7 - 15 years) ; *secondary education* was provided for 25 % of the population of the appropriate age group (16 - 18 years). In 1975, El Salvador had 18,250 teachers distributed as follows : 933 in preschool education ; 16,563 in basic education ; 754 in secondary education. An attempt has been made to overcome the problem related to the shortage of school premises by adopting the shift system in basic and secondary education, and by using such unconventional places as laboratories, workshops, cultural centres, libraries, etc. as classrooms.

Despite these efforts, absolute illiteracy figures are disappointing ; however, if we relate them to the total number of inhabitants, the drop in the percentage of illiterates may be regarded as satisfactory (Table 7).

1.4.1. Structure of the Educational System

The national educational system is organized on the basis of two main subsystems - formal and non-formal - each comprising the following levels and areas of action :

FORMAL EDUCATIONAL SUBSYSTEM	Preschool level Basic level Secondary level Higher level
NON-FORMAL EDUCATIONAL SUBSYSTEM	Adult education Youth work Preservation and enrichment of cultural patterns Preservation of the natural heritage Development of the arts Promotion of sport

In *Figure 2*, the structure of the educational system is related to the average age for each grade, and includes the different forms of education at each level.

Table 7 : *ABSOLUTE AND RELATIVE FIGURES OF TOTAL LITERATE AND ILLITERATE POPULATION (1950 - 1975)*

Year	Total Population	%	Literate Population	%	Illiterate	%
1950	1,316,685	100.0	556,572	42.3	760,113	57.7
1961	1,695,773	100.0	861,032	50.8	834,741	49.2
1971	2,375,744	100.0	1,419,074	59.7	956,670	40.3
1975	2,803,817	100.0	1,739,658	62.1	1,064,159	37.9

SOURCE : ODEPOR.

---

(1) Cf. TEDESCO, Juan Carlos. *Industria y educación en El Salvador*, Dealac, 1978.

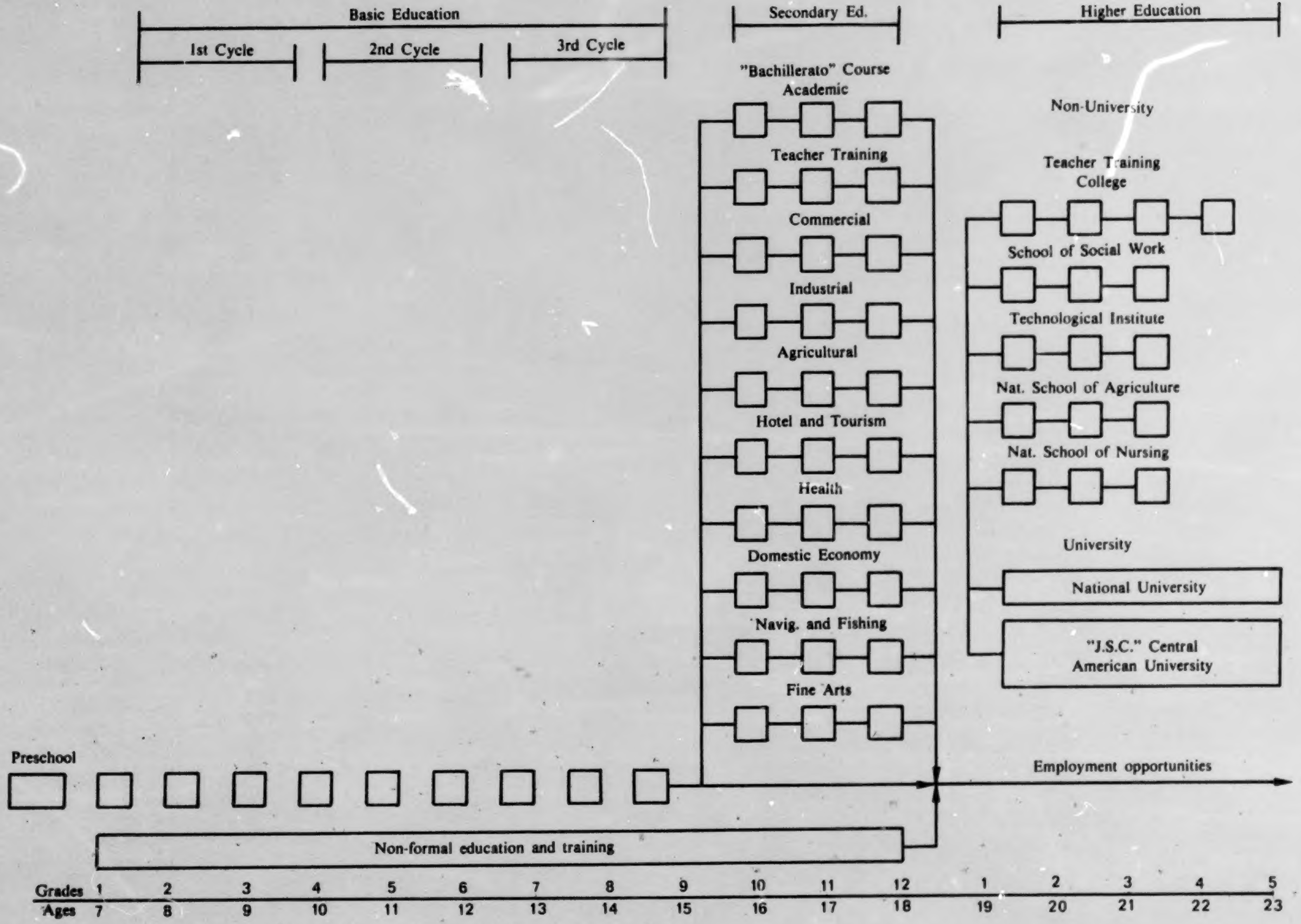

Basic Education
1st Cycle
2nd Cycle
3rd Cycle
Secondary Ed.
Higher Education
"Bachillerato" Course
Academic
Teacher Training
Commercial
Industrial
Agricultural
Hotel and Tourism
Health
Domestic Economy
Navig. and Fishing
Fine Arts
Non-University
Teacher Training College
School of Social Work
Technological Institute
Nat. School of Agriculture
Nat. School of Nursing
University
National University
"J.S.C." Central American University
Preschool
Employment opportunities
Non-formal education and training
Grades
1
2
3
4
5
6
7
8
9
10
11
12
1
2
3
4
5
Ages
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

Figure II : STRUCTURE OF EL SALVADOR'S EDUCATIONAL SYSTEM

CHAPTER 2

THE FAMILY EDUCATION PROJECT

2.1. THE DEVELOPMENT OF THE PROJECT : THE THREE STAGES

The introduction of population education into Salvadorian schools was officially organized and put into effect through the *Family Education Project*. As in other countries, it followed a series of activities in the same field, some of which were undertaken by private bodies.

In chronological terms, the programmes and activities aimed at incorporating the Family Education Project into the Salvadorian context were carried out in three major stages : 1971-1973 ; 1974-1975 and 1976 to the present.

2.1.1. The Family Education Comittee

During the first stage (1971-1973), one of the priority activities was related to the organization of a Family Education Comittee, created by a Presidential Decree dated 8 June 1972. The same Decree also called for the setting up of the "Family Education Project". The Committee was composed of the representatives of the Ministry of Education, (the Directorate-General of Education, Directorate of Educational Services, Directorate of Secondary and Higher Education, Educational Television and the Teachers Welfare Services), the Ministries of Public Health and Agriculture and Animal Husbandry, the National Association of School Teachers, the Association of Catholic and Private Schools and the National Association for the Protection of Children.

During this phase, a series of intensive activities aimed at fostering awareness and motivation and at providing guidance and training, was developed. For example, in 1972, 48 working sessions were held with various groups (four with the Minister of Education and subordinate officials ; six with the departmental heads of the Ministry, four with the Salvadorian Demographic Association, a private body which had started its activities in this field in 1962; three with the corps of 120 inspectors : thirty with about 2,000 teachers of the third cycle of basic education and one with the heads of private schools). Besides, two training courses for the heads and one training course for the inspectors of basic schools were also organized. In addition, training was given to a special group of teachers whose principal task in the different parts of the country was to consist of bringing about the effective participation of all those who were likely to be involved in the project and the active collaboration of the important social groups. In view of the work involved, these teachers were called "catalysing agents" (agentes multiplicadores) and they were recruited following a selection criteria from among the teachers working in the third cycle of basic education. Upon completion of their theoretical and practical training of varying duration, a group of 30 catalysing agents resumed their normal teaching duties. Accordingly, their work related to family education and was carried out during the weekends and in the evenings. According to the available statistical data, these 30 catalysing agents contacted, essentially during 1973, almost all the 2,400 teachers of the third cycle and about 50 % (approximately 6,500) of the first and second cycles of basic education.

Their main activity consisted in bringing about a favourable attitude among the different sections of the community towards the family education programme and giving them a general idea of the various areas of its content. Parallel action was taken during 1972-1973 to tackle the complex task of integrating the various elements of population education into the curricula. It was decided not to create a new discipline but to integrate family education into the existing course subjects (principally, "natural sciences" and "social studies" and to some extent "national language" and "mathematics") of grades 1 to 9 of basic education.

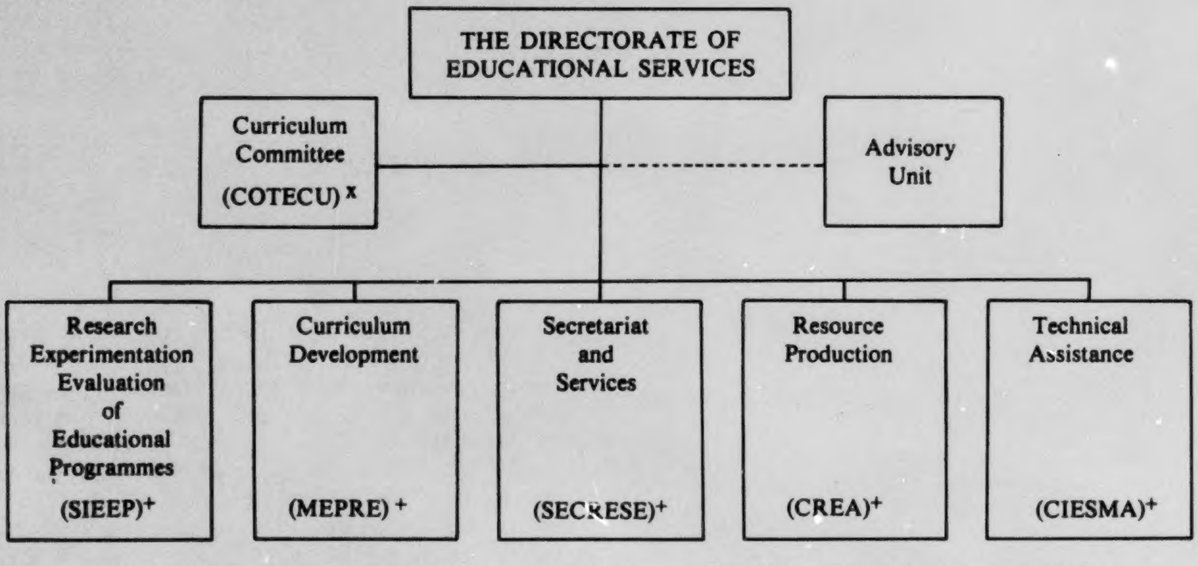
Given the impossibility of developing new curricula, the publication of an offprint for the existing courses was undertaken. The offprint consisted of two parts : the first provided a general description of the demographic situation of El Salvador and set out educational objectives, methodological suggestions and strategies for implementing the programme ; the second part covered the introduction of family education contents into the four selected subjects.

A pamphlet dealing with the teaching methods of population education was also published. It presented an analysis of the role of teachers and parents in this new area of activity and included an explanation of the most suitable teaching methods for its development.

2.1.2. The initial institutional set-up of the project (1974-1975)

The importance which came to be attached to these activities emphasized the need to incorporate the family education project organically into the national education structure. Thus, the Minister of Education decided to place the project as from 1974 under the *Directorate of Adult and Life-Long Education*. The basic aim behind this decision was to capitalize on the experience of one of

Table 8 : *ORGANIGRAM OF THE PROJECT*


THE DIRECTORATE OF EDUCATIONAL SERVICES
Curriculum Committee (COTECU) x
Advisory Unit
Research Experimentation Evaluation of Educational Programmes (SIEEP)+
Curriculum Development (MEPRE) +
Secretariat and Services (SECRESE)+
Resource Production (CREA)+
Technical Assistance (CIESMA)+

x Composed of the Director, Deputy-Director and co-ordinators of *MEPRE, SIEEP, CREA* and *CIESMA*.
+ Executive unit.

the persons who had worked on the project as Chairman of the Family Education Committee and who had been appointed Director in charge of activities concerned with adults.

This new institutional position, however, resulted in the loss of the possibility of dialogue and joint endeavours with the other departments of the Ministry such as the Directorate of Educational Services, "Ciudad Normal" and Educational Television Service, the utmost attention being given at this time to the project's contribution to basic education.

Besides, it enabled the project to depend on its own personnel. A group of ten technical personnel was gradually recruited - the recruitment of which started in March 1973, was completed only in April 1975 - (financed by the Ministry's budget) who along with four national teachers (financed by Unesco and UNFPA) took over the activities planned under the project. Unfortunately, a majority of these personnel had not taken part in the experimental phase of the project and owing to budgetary difficulties, catalysing agents (agentes multiplicadores) who had much experience in the project, could not be recruited to fill these posts.

During this phase, the activities aimed at creating awareness among the corps of national teachers and other population groups, were continued. Nevertheless, there was a need to provide a more solid support to the teachers who had already been motivated by the activity described above. Also, the offprint which had been widely distributed could not be used easily by the teachers. For it represented a curricular activity in addition to the official course work involving supplementary teaching responsibility and it was difficult to develop it within the framework of the given time-table without adequate training. It was therefore decided to prepare teaching guides with a view to help in a concrete way the work of the teachers in the third cycle of basic education. Regretfully, however, the contracted technical personnel were unable to do this work satisfactorily due to lack of experience in the different areas of the project and in developing teaching materials. Besides, there was duplication of efforts by the Directorate of Educational Services and the Educational Television Service which also set out to produce teaching guides. All these factors underlined the need to reorganize the project.

2.1.3. The revision and reorganization of the project (from 1976 to the present)

Towards the end of 1975, it was agreed to revise the Family Education Project as a result of which it was transferred to the Directorate of Educational Services which was also responsible for the renewal of curricula and programmes in basic, secondary and adult education (see Table 8 for the organigram).

The revision of the project implied not only the widening of the scope of activities of the third cycle of basic education, but also those of the two other levels, i.e. adult and secondary education. Besides, the transfer of the project provided an incentive to the Directorate of Educational Services to undertake the revision of the plans and programmes formulated under the 1968 Educational Reform (1) : the aim of this revision was to introduce new methodologies and approaches which would make the educational system relevant to the acute socio-cultural and economic problems affecting the country.

---

(1) In El Salvador, educational reforms had been carried out three times in the last 40 years : the first which occurred in 1940 concerned primary education alone and was limited to curriculum reform ; the second undertaken in 1945, essentially concerned secondary education and focused on promoting common core or prevocational studies ; the third, introduced in 1968, embraced almost the entire educational system. Most of the time, the teaching corps was opposed to this reform undertaken by the Ministry thereby creating difficulties for its implementation.

In this new institutional structure, the project personnel were affected to the different sections of the Directorate in order to promote those of their activities which were related to family education. Thus, during this stage, two major lines of action were developed : the development of a new curriculum for secondary education and the revision of the basic education curricula. The most important activity undertaken during the first part of this stage was the organization of a workshop on the "Development of Curriculum with Population Component", which served as the basis for carrying out the revision of basic education curricula. This revision was conducted in two phases :

2.1.3.1. The First Phase

First, the curriculum of the first and second cycles was revised by incorporating family education elements. This was carried out between 1976 and the middle of 1977. This work, however, suffered from two shortcomings ; in the first place, owing to the difficulties of interministerial coordination, the revision was carried out entirely by the personnel of the Directorate of Educational Services without the participation of the other services of the ministry such as the Directorate of Basic Education, the Educational Television Service and the "Ciudad Normal". In the second place, just as in the case of the 1968 reforms, the teachers were not systematically consulted. Under these circumstances it was not considered wise to give official approval to the revised curricula and therefore it was decided to conduct, under the leadership of the Directorate of Educational Services, a national debate on educational reform during the first semester of 1978.

After a series of activities at the regional level in which teachers, parents and community leaders took part, a national debate took place in May 1978. The reform was officially approved and the need to include elements of family education especially in relation to sex education and ecology was emphasized.

2.1.3.2. The Second Phase

The activities of the second phase which were started towards the middle of 1978 are marked by three important characteristics : (a) the participation of the various departments of the ministry which continue to take active part in the reform activities ; (b) involvement, from the beginning, of teachers from the regions where experimentation was to take place. In this sense, the new curriculum will be the product of joint work by a group of teachers and officials from the ministry ; (c) the framework of the reform did not constitute a limitation for these activities as it was the case during the first phase.

According to the present time-table, the experimental application of the updated curricula in the first cycle of basic education should take place in 1979. Its implementation in the second and third cycles would take place in 1980 and 1981 respectively. In accordance with this time-table, the Ministry of Education of El Salvador has planned that the basic education schools in the country will introduce the updated curricula - into which family education will have been integrated - on a regular basis from 1982 onwards.

As regards adult education, the project has undertaken a number of significant activities during this third stage. In this connection, reference may be made to the structural changes introduced in the basic education of adults and the introduction of family education in the rural vocational training project. These were implemented mainly during 1975, by the Directorate of Adult and Life-Long Education.

A fairly elaborated description of the various activities implemented at the different levels of education in the framework of the family Education Project are given in Chapter 3.

2.2. TECHNICAL AND FINANCIAL ASSISTANCE FOR THE FAMILY EDUCATION PROJECT

From the time the project was started, El Salvador has sought the cooperation of the Agencies and Funds of the United Nations system including the United Nations Fund for Population Activities (UNFPA) and Unesco. Thus in 1970, the Government requested assistance from the UNFPA to define the basic objectives of the project. Three technical advisors from Unesco were recruited in this activity for six months in 1971. During the first phase (which, as we mentioned earlier, started in December 1971) three advisors then participated as experts : one principal technical advisor till December 1973 ; one expert in sex education until the same date ; and one expert in audio-visual aids from March 1973 to February 1974. In addition, UNFPA also provided funds for financing several fellowships (see point 4.3) and for purchasing specialized reference materials.

In 1974, the Government requested Unesco and UNFPA to extend their technical and financial assistance by a further two years. This was approved at the beginning of 1975 and the assistance became effective as from July of the same year. During this period, however, there was no interruption of support from the Agencies of the United Nations system and the project continued to operate with the cooperation of two consultants on production of teaching guides : the first consultant working between January and March 1974 and the second between November 1974 and January 1975.

In the framework of the extension of the project, one principal technical advisor (July 1975 to July 1977) and two consultants on the production of teaching materials - especially in biology and demography - (February to July 1977) participated in the project. In addition to this international personnel, the assistance provided by UNFPA also helped to finance the recruitment of four national technicians (the payment of salaries for whom was assumed by the Ministry from January 1976 onwards), the purchase of audio-visual equipment and award of several fellowships for specialization.

Towards the middle of 1977, the Government again requested financial assistance from Unesco and UNFPA, essentially to provide technical assistance for implementing the various stages of the project which had been developed by the Directorate of Educational Services. This assistance was granted and became effective in October 1978. It included the appointment of a principal advisor for a period of one year and three consultants : one curriculum expert (4 months), one specialist in teacher training (4 months) and one specialist in the production of teaching materials for basic education (6 months).

Throughout its development, the project also benefited from the assistance of appropriate advisors provided for short periods by the Population Education Programme of the Unesco Regional Office for Education in Latin America and the Caribbean (OREALC).

2.3. THE AIMS AND ULTIMATE PURPOSE OF THE FAMILY EDUCATION PROJECT

The Family Education Programme in El Salvador is national in scope, covering both urban and rural areas and its contents are therefore adapted to the specific needs of each region.

Although at the beginning, the main target group was constituted by the adolescents in the third cycle of basic education, it was decided to extend the experiment to cover both the great mass of children who make up the broad base of the country's population pyramid and the most economically and socially vulnerable sectors of the adult population. The designers of the project relied on two types of sources : the available literature and the field studies, in order to compile the basic socio-cultural description of the population groups selected as the target for experimentation (1).

The starting-point for the planning, organization, technical and administrative development of the project was the *clarification of the concept of family education* undertaken with a view to standardizing criteria and avoiding misunderstandings. *Family education* was then defined "as an important part of the all-round education of the individual, which is conducive to his healthy biological and psycho-social development, and leads him to an awareness of his responsibilities towards his own person, members of the other sex and the community" (2).

This definition emphasizes the *relationships* in the individual's life in terms of *responsibilities* vis-à-vis personal and social problems - self-respect, equality of the sexes, concern for and protection of the environment, the equilibrium between production and consumption, etc. - with a view to developing a deeper *critical awareness* and fostering rational behaviour.

In the light of this clarification, the following general objectives were set for the Family Education Programme :

a) To bring about a gradual and harmonious change in the all-round development of the individual in relation to his own person, his family and society.

b) To help each person form a clear idea of himself as a biological and psycho-social being, with a view to bringing about healthy relationships between the sexes and a better understanding of problems in this aspect of life.

c) To foster an understanding of family and community values so that each individual will play his proper part as a member of a family and a community.

d) To promote the development of an awareness of population and environmental matters and so encourage constructive attitudes towards the population problems of the country and the conservation of the natural resources.

The content of family education is concerned with the most important decisions an individual has to take in his life (when to get married, how many children to have, where is the best place to live, etc.). Although these decisions appear to be a purely personal matter, they affect the *birth rate*, the *death rate* and the *migration figures* ; that is to say, they affect the *population dynamics* of the country.

However, it should be stressed that, despite the acute population problem in El Salvador, the project leaders paid special attention to emphasize in the programme *respect for freedom of choice and human dignity* and the *necessity to avoid all forms of indoctrination or compulsion.* This is why the project is geared to long-term achievements and immediate results are not anticipated.

The *structural changes* needed to improve the *quality of life* of the population will only come about when each of the following processes has occurred in turn :

a) the training of sufficient numbers of teachers who are capable of facing up to and overcoming the cultural barriers frequently encountered in this field ;

b) the bringing about of an understanding of the need for a change in attitudes, values and behaviour in the personal, family and social lives of learners as well as in relation to the economic and social conditions of the country, instead of the mere transmission of a certain body of theoretical knowledge ;

c) the putting into practice by students, on reaching adulthood, of the various things they have learnt at school in the setting up of their homes and in their interactions with the milieu.

In view of the high school *dropout rates* in the country, the project leaders decided to repeat a certain amount of basic content in each grade and level, in the hope that the pupil - child or adolescent - will take in a minimum amount of basic information on these matters before leaving school.

---

(1) The national character of the project was strengthened by the literature on which it was based after an exhaustive review of available material. These studies include : *Un dilema : la educación sexual*, de Querubina Hernández de Paredes (El Salvador) ; *Sexo y juventud*, de S. Montes S.I. y L.F. Valero Iglesia (El Salvador) ; *Desarrollo del adolescente y problemas sexuales de la adolescencia*, de Paula Pelaez, (Chile) ; *Investigaciones sobre educación sexual*, Univ. del Valle, Programa de Educación para el Desarollo Humano (Guatemala). *Socialización : un estudio de familia y sexualidad*, Family Life Programme (Chile).

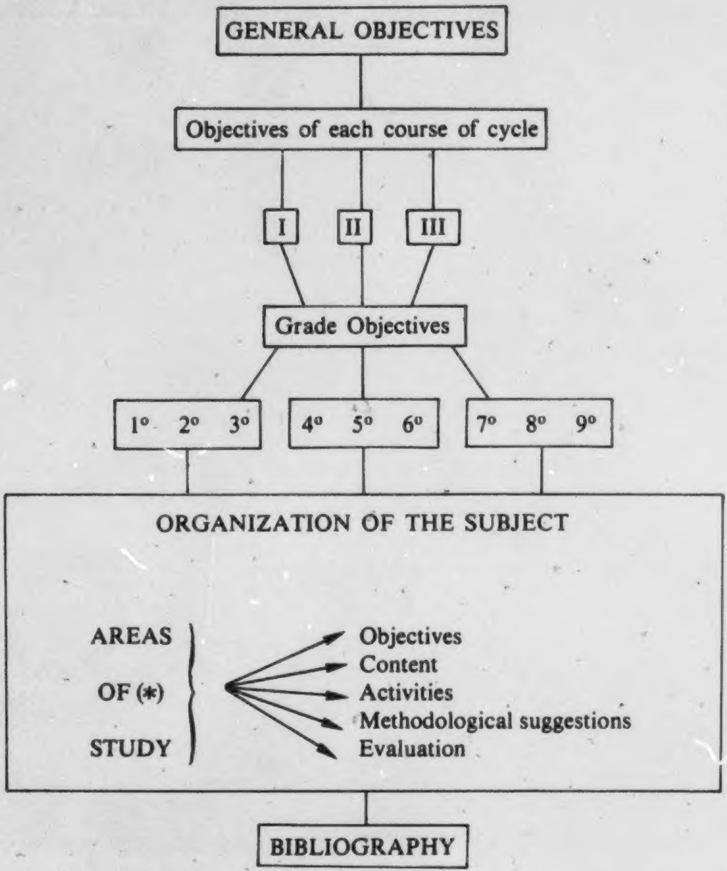
(2) Piriz-Batista, Renée. *Didáctica de la educación familiar*. Ministry of Education (El Salvador). Unesco Headquarters, p. 8.

CHAPTER 3

THE FAMILY EDUCATION PROGRAMME IN THE EDUCATIONAL SYSTEM OF EL SALVADOR

Although the Family Education Programme was launched in 1971, the effective incorporation of population education contents into the curricula began, as we have seen earlier, in 1976 when the Directorate of Educational Services started the revision of the existing curricula.

To date, planning for Family Education in El Salvador has concentrated on *basic*, *secondary* and *out-of-school* education. Accordingly, we shall focus on these areas of education. We shall first describe the traditional content and then show how it has been enriched by the introduction of family education contents into the curriculum.


GENERAL OBJECTIVES
Objectives of each course of cycle
I
II
III
Grade Objectives
1° 2° 3°
4° 5° 6°
7° 8° 9°
ORGANIZATION OF THE SUBJECT
AREAS
OF (*)
STUDY
Objectives
Content
Activities
Methodological suggestions
Evaluation
BIBLIOGRAPHY

(*) Certain *central themes or topics* serving as the focal point for teaching purposes for closely related content in one or more subjects.

3.1. BASIC EDUCATION

Stemming from the 1968 educational reform, a nine-year *basic education* system was established in El Salvador, comprising the first three years of secondary school in addition to six years of primary school. This reorganization led to the revision of existing curricula in an attempt to solve some of the problems repeatedly raised by teachers : overloaded and obsolete content ; a lack of logical order in certain subjects ; insufficient use of active and participatory methods ; the need for adaptation to local realities ; the failure to deal with the social and economic aspects of El Salvador, etc.

The new curriculum was divided into three areas (1) :

HUMANITIES Social studies, aesthetic education, national language, foreign language

SCIENCES (mathematics, natural sciences)

PHYSICAL EDUCATION

Each of the subjects in the current curriculum is structurally organized on the basis of the schema above.

3.1.1. The integration of family education elements into the curriculum

In a first attempt, the strategy selected to incorporate family education elements into basic education, involved both the strengthening of the *activities* and the *methodological suggestions* in all the subjects. With the former being intended for the students and the latter for the teachers. Although this approach presented certain structural shortcomings which were subsequently remedied (see 3.1.2.) it represented at that time a major contribution to educational renewal.

The course on "Social Studies" for example - whose content was organized as a syllabus comprising four areas of study (presented in Table 9) - was modified by the incorporation of population education elements. A visual presentation of this change is given in the comparative plan of studies below.

Table 9 : *AREAS COVERED BY THE SOCIAL STUDIES SYLLABUS IN BASIC EDUCATION*

Cycle	Grade	Areas covered in Social Studies			
		AREA 1	AREA 2	AREA 3	AREA 4
I	1	Our behaviour	Our school	Our home	Our community
	2	"	"	"	"
	3	"	"	"	"
II	4	Early settlements	European influence	Present day life	Geographical situation of our country
	5	"	"	"	Geographical situation of Central America in America
	6	"	"	"	Geographical situation of America in the world
III	7	"	"	"	Geographical situation of El Salvador in Central America
	8	"	"	"	Geographical situation of El Salvador in America
	9	"	Influence of Medieval and Modern Culture	"	Geographical situation of El Salvador in the world

---

(1) A number of the subjects forming part of these three areas were themselves the outcome of previous integration : *Social Studies* include geography, history, ethics, urbanidad and civics. *National Language* includes Spanish language and literature. *Mathematics* include arithmetic, algebra and geometry. *Natural Sciences* include physics, chemistry, botany and zoology.

<table>
<tr><th>Methodological suggestions for the current syllabus</th><th>Additional material incorporated or improvement introduced by Family Education</th></tr>
<tr><td colspan="2"><i>Grade I - Area 1 : "Our Behaviour"</i>
<i>Content : Duties towards oneself</i></td></tr>
<tr><td>Discuss the different articles of clothing with the pupils.</td><td>Discuss the various articles of clothing worn by boys and girls.
Emphasize the shared character of parental authorities in the family. Comment on the role of children, their needs, rights and responsabilities, the way they can help the family etc.</td></tr>
<tr><td colspan="2"><i>Grade I - Area 3 : "Our home"</i>
<i>Content : Family gatherings and festive occasions</i></td></tr>
<tr><td>Encourage the pupils to describe family gatherings and festive occasions.</td><td>Choose events such as the birth of a child or a wedding and explain their importance and significance.</td></tr>
<tr><td colspan="2"><i>Grade I - Area 4 : "Our community"</i>
<i>Content : The river, the sea, the valley and the mountain and how they affect climate and production in the community</i></td></tr>
<tr><td>Organize a walk and encourage the pupils to observe the climate, the soil, vegetation and similar aspects. Comment on the fact that the community is situated on a hill, in a valley, in a low-lying region, at the foot of a volcano, on a plain or on a plateau, and explain how the relief affects the climate....</td><td>and the production of food, water and all the other resources needed by the country. Explain that these resources have to be preserved and protected. Comment on the various things observed and refer to the way they affect life in the community.</td></tr>
<tr><td colspan="2"><i>Grade 9 - Area 2 : "The influence of medieval and modern culture"</i>
<i>Content : Organization of medieval and modern society</i></td></tr>
<tr><td>Describe some of the customs in the Middle Ages and give bibliographical sources on a... b... c... d... ; the rapid population growth in modern times....</td><td>its causes and consequences. The teacher may use a historical population chart to analyse the so-called "population explosion", i.e. the fact that the world population is increasing at a rate never before experienced in human history. The teacher may also refer to the chart to show how it took our entire history for the population to reach 1,000 million around the year 1800. No more than 160 years later, it had reached 3,000 million. It is estimated that by the end of this century the world population will be 6,000 million and after the year 2000 it will take only 30 years for it to reach 12,000 million on present growth rates.
Explain to the pupils the causes of this phenomenon :
a) Mechanization, which brings about the expansion of agriculture and bigger harvests, resulting in more food being available.
b) A growing pattern of urbanization.
c) The "industrial revolution" and the use of coal and oil as sources of energy for factories and transport, and</td></tr>
</table>

Methodological suggestions for the current syllabus	Additional material incorporated or improvement introduced by Family Education
	electricity for a wide variety of purposes. This has increased man's ability to house, feed, clothe and educate a growing number of human beings. d) An "administrative revolution" which facilitated the growth of the vast network which underpins modern industrial society. e) The sharp drop in mortality in the early 19th century and the even sharper drop after the Second World War as a result of the discovery of vaccines, the use of DDT, and the control of plagues, yellow fever, cholera, typhus, amoebic and bacillary dysentery, tuberculosis, malaria and other diseases. f) High birth rates, which have shown little sign of declining. g) Traditional socio-cultural patterns.

3.1.2. Design of the "study units" for family education

The example given in the preceding paragraphs clearly shows that the selected strategy of introduction leads to the dispersion of the content of family education among the different areas of study. No doubt, this made it difficult to verify the *correlations, sequences* and *continuity* of this content. With the aim of remedying this deficiency, an attempt was made to *integrate concepts* in so-called "study units" for family education. These units, while still open to improvement, represent an attempt to classify and order content. They are :

a) *Family* : types, kinship, interpersonal relationships, functions of the family, family traditions ;

b) *Relationships between the sexes* : chivalry, feminity, formation of friendships, relationship problems, moral standards and social norms ;

c) *Reproduction* : origin and embryonic development of human beings, animals and plants ; differences and similarities in the modes of reproduction ; anatomy and physiology of the human reproductive system ;

d) *Growth and development* : growth and emotional maturity in adolescence, youth, adulthood and old age ; puberty and menstruation ; endocrinal system ;

e) *Population* : descriptions of populations ; population dynamics ; natality, mortality, migration ; growth ; density ;

f) *Natural resources* : types, guidelines for their rational use ;

g) *Interaction between organisms and the environment* : physiological response of organisms to environmental pressure ; environmental changes ; causes and effects ; food-chains ; life-cycles.

These study units of family education present a number of teaching advantages in the classroom : linking up of teaching periods ; fostering the learning process requiring a relatively continuous effort on the part of the students ; simplification of the programmes by eliminating any trivial or unconnected ideas ; enabling the preparation and use of various types of teaching aids ; facilitating the application of the principles of continuity, sequence and correlation in knowledge throughout basic education ; and finally, supporting the effective supervision of the family education programme at school level.

3.2. SECONDARY EDUCATION

Following the 1968 educational reform, El Salvador envisaged the diversification of the "Bachillerato" course into ten different course categories (options) covering : academic studies, agricultural studies, industrial studies, teacher training, commercial studies, hotel and tourism, navigation and fishing, health, home economics and fine arts. Each of these different courses of study offers a number of choices or options (23 in all).

The length of the "Bachillerato" course was reduced to three years. The subjects were divided into two main groups :

a) Subjects *common* to all the courses of study leading to the "Bachillerato" (Table 10).

b) *Vocational* subjects.

3.2.1. Integration of family education into the common core subjects

In El Salvador, the revision of secondary school curricula was begun in 1976 at the same time as the work in basic education was undertaken.

Among the various subjects offered in the different options, *biology* was the only subject in the "Bachillerato" courses into which it was decided to incorporate family education components. The reason for this choice was that, as *Biology* is a "common subject" it has the

Table 10 : *"BACHILLERATO" COURSES*

Common Core Subjects	1st grade	2nd grade	3rd grade
1. Literature	3 HW *	2 HW	2 HW
2. English	2 HW	2 HW	2 HW
3. Mathematics	2 HW	2 HW	2 HW
4. Aesthetic education	1 HW	1 HW	1 HW
5. Biology	4 HW		
6. Chemistry	2 HW	2 HW	
7. Social studies	3 HW	3 HW	
8. Physics		2 HW	3 HW

* HW = Hours per week.

advantage of extending the benefits of the family education programme to all the different courses and options referred to earlier.

This decision involved both the total revision of the course syllabus of the subject as well as the linear programming of all the topics treated under Biology. The current *Biology* syllabus includes the following *areas of study* and *topics* shown below.

This revision led to the preparation of a *Draft Biology Syllabus* in which the content of family education was included to the maximum extent possible (Table 12).

Aspects of *sex education* are included in *Area 1*, and *population studies* and *environmental studies* in *Areas 2 and 3*. In this way, all the pupils in the first grade of a "Bachillerato" course will be given basic instruction in family education with a twofold objective : to promote

Table 11 : *AREAS AND TOPICS OF STUDY IN THE BIOLOGICAL SCIENCES*

Areas of study	Topics
AREA 1 : Organization of living things	1.1. Cytology 1.2. Cell physiology 1.3. Biological heredity 1.4. Organography 1.5. Histology
AREA 2 : Taxonomy	2.1. Basic principles 2.2. Vegetable taxonomy 2.3. Animal taxonomy
AREA 3 : Ecology	3.1. Concept and scope 3.2. Ecosystem 3.3. The environment 3.4. The community 3.5. Ecological zones of El Salvador
AREA 4 : History of Biology	4.1. Biology in Ancient Times 4.2. The Middle Ages 4.3. The Renaissance 4.4. The present 4.5. Great discoveries of the 19th century. 4.6. Philosophical foundations of biology 4.7. A historical review of biology in El Salvador.

Table 12 : *DRAFT BIOLOGY SYLLABUS FOR GRADE 1 OF THE "BACHILLERATO" COURSE*

Areas	Units
AREA 1 : Human reproduction	1.1. Co-ordination in the human being through the nervous system and the endocrinal system. 1.2. Human reproduction - Anatomy. 1.3. Human reproduction - Physiology. 1.4. Fertilization, gestation and birth. 1.5. Psycho-social aspects of fertility.
AREA 2 : Nutrition, food and population	2.1. Food and agriculture. Present situation. 2.2. Obtaining, processing and using food. 2.3. Answers to the food crisis.
AREA 3 : Man and his environment	3.1. Ecology : basic principles and concepts. 3.2. Natural resources. 3.3. Ecological relations. 3.4. Populations.

among pupils the immediate application of this knowledge in their personal and social lives, and to motivate them to choose certain "Bachillerato" courses.

3.2.1.1. The preparation of teaching guides for Biology

The preparation of the "Draft Biology Syllabus" was accompanied by the development of a teaching guide for each of the three areas of study. The first teaching guide to be published was on *Human Reproduction*. The guides on *Nutrition, Food and Population* and *Man and his Environment* are in preparation and it is expected that they will be completed shortly.

The main aim of the production of these teaching guides has been clearly stated by those responsible for the work : "to help the teacher to steer clear of the traditional pitfalls in his approach to the teaching of Biology. He will only do this if teaching is centred around the basic problems of contemporary life. However, an effort should also be made to avoid any kind of situation in which the teacher merely utters statements about the world to a passive audience of pupils who do not think for themselves and who are not given any opportunity to develop their creative abilities. If we are in agreement with the idea that education is a process involving the re-construction and reorganization of experience, we have to accept that the task of the teachers is to provide those stimuli which provide the best means of fostering the all-round development of learners. The latter will not develop their abilities freely unless they are given a chance to think for themselves, to analyse problems critically and to endeavour to find solutions with the use of scientific methods" (1).

The teaching guide on *human reproduction* consists of five thematic units, each of which is organized into three *sections : specific objectives, methodological suggestions* and *content*. The treatment of each unit requires at least 40 hours of class work.

a) *Specific objectives* : description of new approaches that are desirable in regard to :

b) *Methodological suggestions* : the teacher is recommended to adopt various teaching activities and materials aimed at bringing about the dynamic involvement of the student (tables, diagrams, slides, etc.).

c) *Content* : summary of the basic informaton which supports the activities recommended in b). The guide also includes a fairly extensive *bibliography* for anyone wishing to pursue the subject further.

The topics dealt with in each unit are based on real problems related to present-day events and concrete situations in El Salvador or other specific geographical areas. Besides, these problems are developed on the basis of a study of the causes, effects and solutions of a fact considered in the framework of social, economic, cultural, environmental relations, etc.

The unit entitled "Psycho-social aspects of fertility" serves as an example of the kinds of interrelationships considered : if this subject does not, at first sight,

---

(1) Ministerio de Educación, Dirección de Servicios Técnico-Pedagógicos, Dirección de Educación Media, Superior, Unesco, UNFPA - *La Reproducción Humana* (*Experimental Manual*) - San Salvador, El Salvador. 1977, page VII.

The scientific facts	The scientific method	The acquisition of skills	The adoption of attitudes
Co-ordination of the nervous system and the endocrinal system in man Human reproduction : Anatomy Human reproduction : Physiology Fertilization, gestation and birth Fertilization : psycho-social aspects	Pinpoint and define the problem Advance hypotheses in order to solve the problem Test the hypotheses Accept hypotheses which have not been disproved Apply the conclusions to new problems	The ability to consult books, dictionaries, etc. for any information needed Evaluate and critically examine statements made by individuals or found in relevant literature Prepare summaries and write up conclusions Read charts and tables Use mathematical skills Plan and conduct interviews and surveys Plan and conduct experiments	Impartiality in dealing with objective problems Avoidance of undue generalizations Readiness to reconsider one's view in the light of new facts As far as possible, base opinions on proven facts Distrust one's preconceived ideas and listen to the views of others Avoid emotive views and superstitions Appreciate the co-operative approach to work Understand causality

appear to belong to the field of biology, this is because it specifically adopts an *interdisciplinary* approach to human reproduction and seeks to provide a structural knowledge of man.

Generally speaking, both the content and the methodology presented in the guide on "Human Reproduction" have been welcomed by Biology teachers. Another notable feature is that the guide is extremely well printed (diagrams, colours, kinds of type, etc.) ; this has undoubtedly contributed to its widespread acceptance.

3.2.2. The integration of family education into the vocational subjects

After a series of analyses, it was decided that specific family education content would only be incorporated into the optional *Academic "Bachillerato" courses*, in the "Natural Sciences" and "Mathematics and Physics". In the other courses, family education would be provided through *Biology* which - as has been seen in the preceding paragraphs - is common to all the "Bachillerato" courses. Subsequent sections will consider the *Ecological Studies* and *Demography* syllabus in the Academic "Bachillerato" course, as they are the most significant from the point of view of this study.

3.2.2.1. Design of the ecological studies syllabus

Efforts to integrate the content of family education focused on the Ecological Studies Syllabus for the third grade of the Academic "Bachillerato" course (in "Natural Sciences").

This task was carried out in co-ordination with the Ministry of Agriculture of El Salvador in an endeavour to build the subject. Around national and international problems and to facilitate their study from a scientific point of view.

This work resulted in the preparation of an "*Ecological Studies Syllabus*" with the content organized into *Areas of Study* and *Units* (Table 13) :

Three alternative approaches are being examined for the preparation of teaching guides in the near future : they should be prepared (i) by the personnel of the Directorate of Educational Services on the basis of the *teaching guide* entitled "Man and his Environment" (Grade 1, Biology) ; or (ii) by a Consultant in cooperation with the Directorate of Educational Services, subject teachers and a representative of the Ministry of Agriculture ; or (iii) by a team of Salvadorian ecologists.

3.2.2.2. Design of the demography syllabus

The Demography Syllabus for Grade 3 of the Academic "Bachillerato" course (the "Mathematics and Physics" option) has been amplified and structurally modified by the integration of elements of family education.

Before the 1976 curriculum revision - which made room for the population education content (cf. 3.2.1.) - the subject was dealt with by an inadequate approach. It was concerned exclusively with statistics and completely disregarded the socio-economic implications of population dynamics.

The current syllabus features a social, cultural and economic *framework* ; a brief description of the *methodology* used and *content* organized into four *areas* and *study units* (Table 14).

Table 13 : *ECOLOGICAL STUDIES SYLLABUS : AREAS OF STUDY AND UNITS*

Areas	Study units
AREA 1 : *Basic principles of Ecology*	1.1. The ecosystem and its members. 1.2. Forms of interaction between organisms and the environment. 1.3. Development and evolution of the ecosystem. 1.4. The biome : composition, functions and factors. 1.5. The ecotone. 1.6. Communities.
AREA 2 : *The energy of the ecosystem*	2.1. The concept and function of energy in living matter. 2.2. The laws of thermodynamics and their relationship to life. 2.3. Food-chains. 2.4. Trophic levels. 2.5. Ecological pyramids. 2.6. Ecological niche and habitat. 2.7. Biogeochemical cycles.
AREA 3 : *Environmental problems in El Salvador*	3.1. The soil and its ecological significance. 3.2. The ecological impact of agriculture. 3.3. Flora and fauna in El Salvador. 3.4. The water problem in El Salvador. 3.5. The pollution problem. 3.6. The population problem.

The *first area* is oriented towards *Formal Demography* which takes up 60 % of the classroom time devoted to the subject (four hours a week totalling approximately 90 hours of class work a year). In this area, emphasis is on gearing the course to students specializing in Mathematics.

The other three areas are oriented towards *Social Demography* and take up 40 % of the allocated time.

This alignment of areas of study has guided the development of the programme content in two *manuals* or *teaching guides* : the first is on *Formal Demography*, and the second is on *Social Demography*. The Formal Demography manual was prepared in 1977 and used experimentally in 1978. The Social Demography manual was tested in 1979.

3.3. ADULT EDUCATION

The large-scale demand for education brought about by population growth and the inability of the system to meet this demand has resulted in the exclusion of large numbers of children, adolescents and adults from the formal educational process. This in one of the most serious problems in the area and an attempt has been made to solve it by setting up a special body known as the *Directorate of Adult and Lifelong Education.* Adult Education is provided in El Salvador both on an organized basis *within the system* and *outside the educational system* (out-of-school education).

a) *Within the system* :

Accelerated first cycle (equivalent to the first two cycles of basic education).
Second cycle (equivalent to the third cycle of basic education).

b) *Outside the educational system* :

Apprenticeship or in-service training in trades which are of immediate use.
Cultural and vocational extension programmes.
Lifelong education.

The *Directorate of Adult Education* initially concentrated on the development of *intensive literacy programmes*, taking the view that the ability to read and write would open the door to individual advancement and social progress.

While this basic principle still applies, experience has shown that literacy programmes do not achieve significant results unless they are set in a *broader context* which helps the adult to improve the quality of his life and solve personal, family and community problems. This new

Table 14 : *DEMOGRAPHY SYLLABUS FOR GRADE 3 OF THE ACADEMIC "BACHILLERATO" COURSE*

Areas	Study units
1. *Introduction to Demography*	1.1. Basic concepts. 1.2. World population situation. 1.3. Sources of data and structure by age and sex. 1.4. Basic demographic measurements. 1.5. Mortality tables and population projections. 1.6. Interrelationship between population variables and implications.
2. *Factors which determine population trends*	2.1. The study of mortality. 2.2. The study of fertility. 2.3. The study of migrations. 2.4. Theories concerning the determinants of population trends.
3. *The socio-economic implications of population dynamics*	3.1. Economic implications : empirical relationship between population growth and income. 3.2. Socio-economic implications : population growth and the demand for services. 3.3. Socio-economic implications : population and urbanization. 3.4. Socio-economic implications : population and health. 3.5. Socio-economic implications : population and food. 3.6. Socio-economic implications : population and natural resources. 3.7. Socio-economic implications : population and the environment. 3.8. Theories concerning the implications of population dynamics.
4. *Population policies*	4.1. Population policy and socio-economic policy : demographic considerations in development planning. 4.2. Population policies in developed and under-developed countries. 4.3. The population policy of El Salvador.

insight has given rise to the development of Functional Educaton and Vocational training projects, some aspects of which will be considered in subsequent sections.

3.3.1. Accelerated basic education

Accelerated Basic Education for adults lasts six years and is divided into two three-year cycles.

For the first cycle it was necessary to design a curriculum based on that used in basic education (Table 15). For the second, the normal syllabuses were used.

The following observations can be made in regard to the *Family Education* content included in the present curriculum :

The area "Let us learn about our natural resources" in the subject entitled *Man's place in Nature* briefly deals with "Soil Conservation".

The area "Sex Education" in the subject entitled *Personal Training* includes the widest range of themes connected with family education (the importance of sexuality, biological and emotional characteristics of men and women, various stages in human development, responsible procreation, sexual problems, venereal diseases, prostitution).

Table 15 : *ACCELERATED BASIC EDUCATION - FIRST CYCLE - Curriculum Outline*

1. National Language	2. Mathematics	3. Man's Place in Society	4. Man's Place in Nature	5. Personal Training
1st, 2nd and 3rd level	*1st and 2nd level*	*1st and 2nd level*	*2nd and 3rd level*	
Reading and writing	Numeration	Area 1 : Our community	Area 1 : Let us learn about our bodies	Area 1 : The community
Conversation	The four basic operations	Area 2 : Let us learn about our resources	Area 2 : Animals and plants around us	Area 2 : Civics
Description	Fractions	Area 3 : Our rights and duties	Area 3 : Let us learn about our natural resources	Area 3 : Health
Narration	Measurements	Area 4 : Let us learn about our origins	Area 4 : Matter, energy and machines which help us to work	Area 4 : Sex education
Let us learn to express ourselves in writing	Geometry		Area 5 : Man and the celestial bodies	
	3rd level Elementary book-keeping	*3rd level* Man and society		

3.3.1.1. Curriculum revision : new draft curriculum integrating population education

As was the case in other levels of the educational system in El Salvador, it became necessary to revise the *adult education curricula* with a view to updating and enriching them with the new content of population education.

This renewal was largely based on a study prepared by the Salvadorian delegation for the Seminar on "*Population Education in Adult Education Programmes*" organized by the Regional Centre for Adult Education and Functional Literacy for Latin America (CREFAL). This document entitled "*Theoretical Context of Adult Education*" contained significant conclusions with regard to the following aspect :

a) *Programme Planning* - Education should be regarded as a priority concern of the State. Although it should be planned in relation to economic and social structures, it should freely reflect humanistic and ethical considerations.

b) *The need for new processes and techniques in order to cater for the needs of those who have been excluded from the educational system* - Based on the need to give a minimul level of education in the face of accelereted population growth, these services should help the learner to form a realistic idea of himself and his environment, and provide him with the basic knowledge and skills required for participation in national productivity, with clear information about his responsibilities and rights.

c) *Adult education may be regarded as a parasystem,* which is a substitute for missed education, complementing existing knowledge and extending education or providing an opportunity for further training, as suggested in Learning To Be (1)

d) *Characteristics of adult education* - It places the adult at the centre of the educational process focusing on his problems and those of the community ; it is based on an awareness of these problems, but also involves a reflective and critical approach to them ; it is flexible and opens the way to lifelong education.

e) *Mistaken ideas about adult education which have to be combatted* - The idea that the programme is an abridged version of the basic education programme designed for children ; that it is simply a literacy programme or a remedial education programme ; that the programme consists of a cast-iron set of content and activities which have to be studied for a formal examination on which advancement depends.

f) *Profile of the "associate learner" in adult education* - A specific person with his own approach to life, his own needs, interests and expectations and having a variety of responsibilities ; he is generally dissatisfied with his social position. He may also be a teenager or child without sufficient time or encouragement to participate

---

(1) *Learning To Be*, International Commission on the Development of Education Unesco, Paris, 1972.

Table 16 : *BASIC EDUCATION CURRICULUM FOR ADULTS (New Draft Outline)*

Socio-Cultural Areas	Objectives
1. COMMUNICATION	To develop the ability to communicate correctly, both verbally and in writing.
2. ENVIRONMENTAL EDUCATION (Ecology)	To encourage a harmonious and respectful approach to nature.
3. FAMILY LIFE	To strengthen positive attitudes towards the family as the basic social institution.
4. SOCIAL LIFE	To foster positive social relations characterized by co-operation, solidarity, tolerance and respect for others.
5. ECONOMY AND WORK	To adopt a rational pattern of behaviour as a producer and a consumer in the light of personal, family and community needs and the potentialities of the environment.
6. DEMOCRATIC LIFE	To evaluate participation in the political life of the community, and to uphold and encourage the democratic spirit.
7. NATIONHOOD	To foster national consciousness and to participate in the consolidation and defence of Salvadorian nationhood in the context of Central-American unity and hemispheric and worldwide solidarity.
8. DEMOGRAPHY	To interpret the phenomena resulting from population dynamics, and to contribute to the solution of the problems arising from population dynamics.
9. HEALTH	To promote preventive action in the areas of safety and the protection of personal, family and community health.
10. LEISURE	To appreciate the value of healthy recreational pursuits and their contribution to mental health and family stability.

in the educational process ; such "students" do not have great confidence in the programmes provided, but still look to the educational process for ways of bettering their situation.

The new *Adult Basic Education Curriculum* outlined in this document relates to a set of *socio-cultural areas* (communication, family education, democratic life, etc.) which are the source of objectives reconciling the aims of national education with those of adult education (Table 16).

These areas are taken purely as "centres of interest" or "starting-points" for a continuous critical analysis of relevant problems.

3.3.1.2. Learning modules

The learning process proposed in the new curriculum is based on the modular approach. The first attempts to design these modules centred on *Family Life* and *Economy and Work* ; the *Health* centre of interest was

Table 17 : *MODULES FOR THE "HEALTH" CENTRE OF INTEREST FOR THE 1ST, 2ND AND 3RD LEVELS OF ADULT BASIC EDUCATION, ACCORDING TO THE POINTS OF REFERENCE DEFINED FOR EACH LEVEL*

Levels	1	2	3
Points of reference	Man, the community and the country	Man, the country and the region	Man, the region and the world
MODULE A	My family suffers from a number of illnesses	Members of the community frequently suffer from certain diseases and illnesses	The population of the country frequently suffers from certain diseases and illnesses
MODULE B	The protection of health and prevention of diseases and illnesses in my family	The protection of health and the prevention of disease and illness among the members of the community	The protection of health and prevention of disease and illness among the inhabitants of the country
MODULE C	The pollution of the environment affects my family's health	The pollution of the environment affects the health of the community	The pollution of the environment affects the health of the population
MODULE D	Persons and institutions that help to look after my family's health	Persons and institutions that look after the community's health	Institutions that look after the population's health

finally chosen as the most definitive example (Table 17). In the modules for this centre of interest, the following items are studied in increasingly broader contexts :

- Illnesses and diseases,
- Factors causing the pollution of the environment,
- Preventive measures to be applied,
- Health care resources.

In this scheme, content does not predominate to the extent it does in the traditional subjects, but it is approached in terms of a *learning activity*.

Furthermore, *evaluation* in the shape of "periodic and final tests of knowledge" has been replaced by a "verification procedure" designed to establish whether the operational objectives of each module have been attained.

As an example of the nature and scope of activities that follow from the above observations, we have included (as Table 18) an excerpt from the unit *"The Accumulation of Refuse and Other Waste"* which forms part of *Module C* of the second cycle of adult basic education.

3.3.1.3. Strategies for the implementation of the new curriculum

Practical steps taken to develop and present the socio-cultural areas on a modular basis necessitated a fresh approach to the teacher-learner relationship :

Some of the conditions of an effective relationship are :

- A natural and friendly approach by the teacher to the adult "associate learner".
- Flexibility about the place of work, which will not always be the conventional classroom.
- Flexibility about the time of work, which will be determined by the adult's degree of motivation in connection with the task involved.
- Definition of the problems which have led the adult to join the course.
- Development of the course modules in the order and form best suited to the adult, keeping to his particular learning pace.
- The need for the decision to become literate to come spontaneously from the adult.

Lastly, this Accelerated Basic Education programme contains a significant innovation : it can be developed without a conventional teacher ; it merely needs a "leader" or a "counsellor", who as a member of the work

Table 18 : *MODULE C : "THE POLLUTION OF THE ENVIRONMENT AFFECTS THE HEALTH OF THE COMMUNITY" 2ND LEVEL OF ADULT EDUCATION* (Extract : *"Accumulation of Refuse and Other Waste"*).

PROBLEMS	OBJECTIVES	ACTIVITIES	METHODOLOGY	EVALUATION
1. The accumulation of refuse in the community, the smoke and fumes from buses, factories, mills, etc. and the inadequate treatment of agro-industrial waste are responsible for disease and illness among the population.	1.1. After an exchange of experiences concerning the damage resulting from this problem, we shall suggest three feasible measures to reduce or avoid each of the aspects mentioned.	1.1.1. We shall identify factories, mills, etc. which are responsible for the pollution of the environment. 1.1.2. We shall compile a list of refuse and waste materials which affect our health. 1.1.3. We shall analyse the causes and effects of waste, refuse, fumes and smoke in the community. 1.1.4. We shall devise feasible measures for dealing with the problem. 1.1.5 We shall launch a "cleaner environment" campaign.	The ORGANIZER will raise the problem that the accumulation of refuse and the inadequate treatment of agro-industrial waste provide a hotbed of infection which threatens the health of the inhabitants of the locality. Reference will be made to the pollution of the environment by smoke and fumes from factories, vehicles, etc. The ASSOCIATE LEARNERS will recount their own experiences with the aim of preventing the accumulation of refuse and waste in their home and places of work. They will organize themselves into work groups to prepare a brief report containing : a list of refuse and waste materials which affect health; improper practices which contribute to the accumulation of refuse and agro-industrial waste; the effects of the accumulation of refuse and agro-industrial refuse and waste on people's health; various hygiene measures to avoid the problem. They will organize a lightning campaign involving the largest number of Associations and members of the community.	During the development and the final stages of the treatment of the objective, the Associate learner should : - List 3 causes and 3 effects of the accumulation of refuse and agro-industrial waste, smoke from factories and fumes from buses. - Indicate 2 feasible measures to avoid infection. - Launch a "cleaner environment" campaign in the community, involving the Associate-learners themselves and the various services in the community.

group, guides the adult and encourages him to take on the responsibility for his own training.

3.3.2. Functional education

The *Adult Functional Education* project was launched in 1973 with the first Latin American operational seminar on adult functional education with a family education component, held under the auspices of Unesco, CREFAL, UNFPA and the Ministry of Education of El Salvador (1).

This Seminar promoted the idea of introducing an educational scheme related to the *real needs* of the community, and of actively involving adults in its implementation : the aim was to link literacy training and instruction in the elements of family education with the specific needs of the persons concerned, within the framework of an overall process of community development.

Although the results of the *Functional Education* project were broadly satisfactory at the *experimental stage* - which involved officials of the Directorate of Educational Services and that of Adult and Lifelong Education with the advisory services of a Unesco expert - serious difficulties arose in connection with large-scale implementation. For this reason, the Ministry of Education of El Salvador finally decided to suspend the project and focused its efforts on the *Rural Vocational Training Programme*.

Nevertheless, it is worthwhile considering briefly the *planning* and *pilot project* stages of the *Functional Education Project* as many of its ideas are still valid.

The first task was to put together an *inventory of the needs and interests* of the inhabitants of nine communities in the Zapotitan area, which had been selected for the pilot project. Three types of *guides* were used in the preparation of this inventory covering direct observation of regional characteristics, interviews and discussion with community leaders.

The information obtained provided a socio-cultural and economic profile of the *families*, with special emphasis on the problems raised by population education. These findings became the basis for the second stage of the project which involved the planning and arrangement of a four-day *Seminar for Area Leaders* (32 in all). One of the innovative features of this Seminar was that the leaders themselves formulated the *plans of action*, under the guidance of educational planning personnel.

This work led to the preparation of a preliminary comprehensive table showing the specific situation and priority problems of each community, with a view to drawing up a tentative plan to solve the problems (Table 19 gives examples of such planning for the communities of "Cerro de Plata" and "Flor Amarilla").

As the Seminar succeeded in motivating the leaders to work on their own problems and created in them a certain degree of confidence in their ability to solve these problems, the *Directorate of Adult and Lifelong Education* contracted four *Instructors* to help with the implementation of the plans formulated at the Seminar. However, these personnel had to be replaced on various occasions over a short period of time owing to working difficulties in the region, or inexperience in this type of work. In view of the uncertainty as to whether the *Functional Education Project* could be extended on a nationwide basis, it was decided to suspend this experiment.

3.3.3. Adult rural vocational training

Vocational training "in El Salvador is a form of instruction which provides initial vocational training for the *unskilled* members of the economically active population" (2).

The Directorate of Adult and Lifelong Education provides an *urban vocational training service* - aimed at the mass of socially excluded persons which are so characteristic of large cities - and a *rural vocational training service* concerned not merely with the development of the individual adult but with the development of his community through the formation of peasant associations.

The courses provided under the second service have a number of outstanding features :

a) they are mobile courses and are given at the places of work of the peasants ;

b) their function is to educate peasants in running, administering and developing small holdings in agriculture, cattle-raising and forestry or in the performance of household tasks ;

c) the course gives each adult simultaneous technical, personal and social training ;

d) all the courses are aimed at setting up co-operatives and small enterprises in order to create more jobs ;

e) the courses are eminently practical, intensive and of short duration (lasting from 3 weeks to 3 months) ;

f) the course instructor lives in the community throughout his assignment.

The instructors are aided by the following support and supervisory personnel : area supervisors, a technical assistant, an organizer and a chief supervisor.

Table 20 summarizes the development of the *Rural Vocational Training Project* in terms of the number of courses and participants between 1975 and 1978.

Implementation of the project started on an experimental footing four years ago in the departamentos of San Miguel and Morazán and the results have been satisfactory. Encouraged by the success of the project, the educational authorities have gradually extended its scope to other regions of the country.

---

(1) See for example, Unesco CREFAL y Gobierno de la República de El Salvador, Ministerio de Educación, Dirección de Educación de Adultos : *Primer Seminario Operacional Latinoamericano sobre Educación Funcional de Adultos con el Componente de Educación Familiar*, Zapotitlán, 26 de Noviembre - 21 de Diciembre de 1973, Informe Final, N° 1 and 2, 1974.

(2) Ministerio de Educación, "Proyecto de Capacitación Laboral en Areas Rurales".

Table 19 : *PRELIMINARY COMPREHENSIVE OUTLINE OF THE SPECIFIC SITUATION OF TWO COMMUNITIES : CERRO DE PLATA AND FLOR AMARILLA*

Community	Problems identified	Formulation of strategies	Rank-ordering of problems	Necessary activities
CERRO DE PLATA	Lack of hygiene in the community Lack of suitable refuse disposal arrangements Unsuitable latrines Poor electricity supply	Organize the community Ask for an educational organizer Seek the assistance of various institutions	Lack of hygiene in the community	Formation of "community boards" Motivation meetings with local people Meeting with a health educator Working sessions with the community
FLOR AMARILLA	No school No drinking water Some homes are without latrines Frequent gastro-intestinal diseases Poor community relations (divisions, no co-operation)	Ask for an educational organizer	No school	Setting up a school building committee Fund-raising activities Legal formalities concerning the site ISTA-Ministry of Education Visits to institutions Meetings with the community

Table 20 : *DEVELOPMENT OF THE RURAL VOCATIONAL TRAINING PROJECT*

Areas of action	Years									
	1975		1976		1977		1978(x)		Total	
	courses	partici-pants	courses	partici-pants	courses	partici-pants	courses	partici-pants	courses	partici-pants
Agriculture	7	235	11	250	97	2,062	37	700	152	3,247
Cattle-raising	15	440	18	415	99	2,248	11	175	143	3,278
Renewable Natural Resources			3	78	12	247			15	325
Construction and Rural Mechanization	178	3,546	105	1,823	30	531	31	629	344	6,529
Rural Economy	31	1,289	79	2,064	73	1,860	19	417	202	5,630
Crafts	23	540	51	1,060	123	3,614	24	595	221	5,809
Home Training	41	1,024	66	1,755	27	618	15	351	149	3,748
Recreation					4	93	5	136	9	229
TOTAL	295	7,074	333	7,445	465	11,773	142	3,003	1,235	28,795

(x) As of 30 March

CHAPTER 4

ANALYSIS OF THE INNOVATIVE CONTRIBUTIONS OF FAMILY EDUCATION

In this chapter, we shall analyse the most significant contributions which the *Family Education Project* - structured on the basis of the content and methodologies of population education - has made to educational renewal in El Salvador. These innovations encompass five aspects which we shall consider separately : *theoretical formulations, the programmes, teacher training, teaching materials and school life.*

4.1. THEORETICAL FORMULATIONS : THE CONCEPT OF "FAMILY EDUCATION"

The population education project in El Salvador has been developed within a *conceptual framework* which originated in the thinking and experiences of the Salvadorian officials and educators, who saw in this new field of education an opportunity to tackle some of the population, environmental, social and economic problems of the country.

The precise demarcation of the concept of "family education" stems from the need to tread carefully when dealing with certain topics so as not to violate or offend the sociocultural sensibilities of the Salvadorian people. The concept constitutes in itself an innovation in the context of national education.

This concept has served as a basis for the development of the successive stages of the project aimed at the attainment of goals which are primarily *formative* as they are defined in terms of *responsibilities*. This implies the increased awareness of certain realities and the adoption of specific forms of conscious behaviour.

In accordance with such an interpretation of the concept of "family education", those responsible for the Project have succeeded in clarifying the fundamental differences between family education and "*family planning*" and in disseminating their ideas. Family planning in the context of El Salvador is directly aimed at obtaining a reduction in the natality rate and its educational goal is limited to bringing about a change in individual attitudes closely linked to this demographic variable.

By contrast, "family education" puts the emphasis on the consciousness-raising effect of knowledge, on a variety of issues and facts - which becomes a means of ensuring that personal decisions may be made with a reasonable degree of freedom ; it rejects the idea of "government interference" in such sensitive areas.

Little by little, this approach has helped to allay the natural fears of both teachers and parents and community leaders in El Salvador that the purpose of this new educational project was to introduce a set of alien ideas into the country with the sole aim of getting the population to adopt birth-control practices.

4.2. THE PROGRAMMES : CONTENT AND METHODOLOGIES

Various reform projects have been undertaken in the Salvadorian educational system (particularly in connection with the integration of family education into the curriculum). However, some of the reforms have not yet been introduced, while others have ceased to be operative. Here, therefore, we shall only consider relevant contributions of those reform programmes which have been implemented recently : the *Demography* programme and the *Ecological Studies* programme, both of which are being introduced in the academic "Bachillerato" course.

In terms of the improvement of national education, the *Demography* and *Ecological Studies* programmes brought about important changes in two areas : one concerns the *responsible behaviour* of the student in relation to personal and social problems ; the other has reference to his *opportunities in the labour market* upon completion of his secondary education. We shall examine both aspects in concrete terms in the specific context of each course.

4.2.1. Demography

The *Demography* course is designed in such a way that the pupil is led to a *critical, analytic and reflective* study of population phenomena. Furthermore, the fact that the approach is based on an understanding of the essence of the problem and a knowledge of the socio-economic and cultural variables which interact with it serves to develop in the learner a *population awareness*.

Another innovative feature of the course is that it stresses the value of *practical activities* through which the student acquires certain skills that facilitate his subsequent incorporation into the labour market if he does not go on to higher education.

The Demography courses provide the pupil with the opportunity to acquire various *technical* skills, the most important of which are :

- handling sources of demographic data (vital statistics, censuses and economic surveys, population surveys, etc.) ;

- the calculation of rates and other statistical indicators (death rate, birth rate, fertility rate, growth rate, etc.) ;

- familiarization with methodology for preparing life tables, population projections, etc.

Skills such as these are needed in various official and private institutions in El Salvador, which are responsible for the compilation and processing of population statistics (including the Directorate of Statistics and Censuses, the Office for Integral Population Policy, the Ministry of Planning, the Salvadorian Demographic Association, municipal authorities, etc.).

With such training, students will be equiped to join these organizations as interviewers, census-takers and assistant demographers (responsible for recording statistics and assisting in the preparation and interpretation of demographic indicators, etc.).

4.2.2. Ecological Studies

The *Ecological Studies* programme - which is currently at an experimental stage - is intended to making the following significant contributions to educational renewal in El Salvador :

- enable the students to build up a critical knowledge of the relationship between man and nature ;

- enable the students to learn skills which equip them to play an active and effective part in the work of the "Volunteer Committees" or in the state programmes aimed at protecting the ecological balance and solving specific environmental problems ;

- train them to organize "Environmental Committees" in the colleges. These "committees" are responsible for arranging lectures, exibitions, round-table conferences, etc. on the need to protect the environment ; they serve as a nucleus for the efforts of students, parents, teachers and community authorities (some of their concrete achievements are : the establishment of a regional herbarium in Sonsonate ; the establishment of a botanical garden in Ahuachapán ; reforestation work by the Instituto Nacional "Santa Rosa de Lima" in Morazán ; marine biology study project in La Unión).

The practical knowledge acquired in *Ecological Studies* stands secondary-school graduates in good stead for obtaining employment with the various state bodies concerned with the *protection* and *management* of the country's *natural resources.*

4.3. TEACHER TRAINING

Throughout the various stages of El Salvador's *Family Education Project*, teacher training has been a priority field of action and in this area the project has made its most valuable contributions to educational renewal (1).

Such contributions primarily concern the *quality* and *approach* of the training and the *student teachers* themselves :

a) *Quality* : The objectives of all courses, workshops, seminars, meetings, laboratory-work, etc. include the development among teachers of a sense of *responsibility and ability to act on their own initiative*, by training them to seek practical solutions to real problems.

b) *Approach* : The conception of reality as a "*structure*" has enabled the teachers to perceive the *interrelationship* between *education* and the *economic, social, psychological* and *cultural* factors (customs, practices, beliefs, religious faith, etc.) which govern the lives of individuals and the community. A constant reference to the population problem in the socio-economic and cultural context of the country helped to bring about this understanding.

c) *The student teachers* : The fact that their future work is to go beyond the traditional areas concerned with school and pupils and include community activities has served to highlight the fundamental importance of all *collective action* in the effective achievement of *structural changes*. The teachers have accepted this situation and are convinced that no progress can be made in the country in terms of the new outlook introduced by population education until an effort is made to make the community aware of the issues involved and win its support.

Furthermore, under the *Family Education* programme, various officials of the Ministry of Education have participated in *international seminars*, which has subsequently improved co-ordination among the different official bodies associated with the project.

During 1974, various technical personnel of the project participated in seminars and training courses aimed at bringing about an understanding of the scope of the work involved. These included : a course on sex education and family planning (New York, U.S.A., March-May) ; a course on sex education organized by the Airlie Foundation (Virginia, U.S.A., March) ; practical training in the population education project at the University of Valle (Cali, Colombia, March-May), and the Regional Seminar on programming in population education organized by Unesco (Santiago, Chile, March-April).

Subsequently, three officials of the Ministry of Education (the Director of Educational Services and the Deputy Directors of "Ciudad Normal" and Basic Education) participated in a regional training workshop on population education organized by the Regional Office for Education of Unesco (Santiago, Chile, 20 October to 14 November 1975). This workshop provided the Directors of the Ministry an opportunity to examine more carefully the position and rôle of population education in the context of the socio-economic problems of Latin America, composed of three categories of countries, each in a different stage of development. As regards the specific case of El Salvador, the workshop provided the participating officials a new insight into the determination of objectives and content of family education programmes.

---

(1) During the first semester of 1979, a great importance was accorded to this aspect and a number of innovative activities were developed with the assistance of a Unesco expert.

Between October and December 1976, a committee of officials which included the Director of Educational Services and the Chief of the Planning and Programming Section, participated in a seminar on "Population Education and Adult Education Programmes" organized by the Regional Centre for Adult Education and Functional Literacy for Latin America (CREFAL). This seminar enabled the committee members to critically examine the various aspects of the adult basic education curricula in El Salvador and to introduce important changes in it (see point 3.3.).

4.3.1. The Training Workshop : Major Activities

These general observations concerning the innovations in education in El Salvador brought about by the teacher training courses within the framework of the family education project will be followed by a description - by way of example - of the main forms of action developed in two training workshops on *Curriculum Development with the population component* and *Family Education in vocational training programmes*, the former being concerned with *formal education*, while the latter concentrated on *non-formal education.*

4.3.1.1. The Training Workshop on Curriculum Development with the population component

This workshop took *Basic Education* as its central theme and sought to prepare *Recommendations* for a revision of the curricula in this area of education.

An *interdisciplinary* approach was adopted for the work ; a broad-ranging analysis was made of the fundamental problems of today's world and the progress made in curriculum development.

The innovative contribution consisted in the preparation of five *working units* designed to guide the participants in their task. These units were each based on an analysis of a specific situation in El Salvador.

Unit 1 : "The interrelationship between the educational system and various problems in present-day society".

The following activities were organized by the teachers :

a) a panel to discuss the following relationships : the relationship between parenthood, family and education ; the relationship between development, population and nutrition ; the relationship between nutrition, population and education.

b) small working groups to carry out "case studies" of specific population and social situations in El Salvador. The chosen methodology involved the use of a series of questions aimed at helping the teachers to discuss certain aspects of these situations.

Unit 2 : "The new learning process".

This unit was developed by means of :

a) questionnaires to foster thinking about the characteristics of the learning process ;

b) discussion of the differences between teaching and learning ;

c) creative work stemming from the learning process ;

d) answers to questions arising out of the "case studies".

Unit 3 : "A new curriculum to match the learning concept"

The group work was organized as follows :

a) analysis of various deficiencies of the educational system to meet curricular demands ;

b) examination of various types of schools : open schools ; contemporary schools, etc. ;

c) discussion of aspects of educational supervision : authoritarian, integrated, etc. ;

d) preparation of flexible curricular schemes to aid teachers (with description of objectives, content, activities and resources) in the field of population education.

Unit 4 : "The basic education curricula"

The main activity was a round-table conference at which various officials from the Ministry of Education explained to the participants the background, philosophy and characteristics of the current basic education programmes.

Unit 5 : "Recommendations for the revision of the basic education curricula"

The different working groups were asked to consider certain problems and difficulties arising in connection with the programme revision conducted by the ministerial team formed for this purpose. The participants were required to devise a number of alternative solutions. These were subsequently developed into the "Recommendations" of the training workshop.

4.3.1.2. The Training Workshop on Family Education in the Rural Vocational Training Programmes

This workshop was repeated in two places - in Nueva Guadalupe and in San Miguel. It was attended by supervisors, instructors and organizers involved in out-of-school education.

It is easier to understand the scope of these workshops if we bear in mind that the *instructors* - responsible for the rural vocational training courses which are eminently practical and of short duration - are officials who have acquired the specific skills of a trade or occupation together with a certain basis of scientific and technical knowledge. Their knowledge of psychology and social questions is limited and this factor generally hinders effective communication with the peasants.

Accordingly, the main objective of the workshop was to encourage each of the instructors to form a clear image of himself as a biological and psycho-social unit. Such an image would help him to understand other people and establish healthy, constructive relationships with the individuals, families and key groups in the community.

The themes around which the action was centred were : *Family Relationships, Human Sexuality*, the *Anatomy and Physiology* of the male and female reproductive organs, and *Sexual Hygiene.*

The innovative aspect of this workshop was *the way it was organized* and the *methodology used.*

Unlike other courses in which programming is reduced to the indication of various essential points, general objectives and lecture titles, this workshop provided participants with an *outline of activities* for each task. This outline was structured as follows :

- *Date* : when the thematic unit would be developed.
- *Guidance and co-ordination* : who would conduct and co-ordinate the development of the units (this promoted a closer working relationship between those responsible for guidance and co-ordination and the participants, and thus facilitated consultation in connection with the group work).
- *Approach* : concise information on the starting-point, the key aspect, the process, and the required degree of thoroughness and comprehensiveness in each theme.
- *Aims* : a precise statement of the aims to be achieved by participants at completion of the activities of each unit.
- *Programming* : a list, details, explanation and a brief description of the various activities planned for each unit.

This arrangment proved to be highly motivational for the instructors, for while studying the elements of family life (through lectures and traditional classroom work), they had the opportunity to become involved in the application of *dynamic methodologies* (sociodrama, case studies, guided reading, film forums, group work, plenary sessions) which proved extremely useful in connection with their rural vocational training courses.

Within the varied range of methods and techniques used at the workshop, *sociodrama* and *case studies* were undoubtedly the instruments most appreciated by the participants from the point of view of their future work. Developed on the basis of actual situations in the community, these aids were useful in preparing the instructors to tackle themes and topics related to family education.

These themes and topics are not discussed in public - particularly in traditional circles - as they are associated with the intimate aspects of sexual, moral and religious experience. The new methodology has equipped participants to externalize their own ideas, emotions and attitudes concerning these areas of experience and to clarify their thinking about the implications of certain myths and taboos.

4.4. TEACHING MATERIALS

Within the context of the family education project, the most significant innovations introduced into Salvadorian education in terms of *the design and production of teaching materials* are of three kinds :

a) educational games,

b) textbooks,

c) reference materials.

Each corresponds to an innovative teaching approach in basic education (educational games), secondary education (textbooks) and adult education (reference materials).

4.4.1. Educational Games

The purpose of these games is to introduce pre-adolescent children to the complex problem of *population dynamics* by helping them to understand the various *factors* - educational, economic, environmental, housing, health, cultural and social - which affect the three *population variables* (mortality, fertility and migrations).

It has been decided to introduce these educational games at *Grade 6 of basic education*, i.e. when the average age of the children is twelve.

This approach involves the use of two games. One is designed to create *motivation* for learning about population questions ; the other is aimed at *integrating* elements of population education. They are introduced into classroom work at the beginning and at the end of the school year respectively.

Through the *motivational* game, the child learns about the demographic variables and population factors by means of a large "bingo" card. The play on this card is presented on a rectangular board, representing the national territory of El Salvador, on which different pieces (which stand for the members of a typical Salvadorian family) are moved about. The *integrative game* is a "treasure hunt" in which the different clues provide the children ways of solving simple population problems affecting their community.

These teaching techniques - designed by the Unesco staff on the basis of a "*transferable model*" can be used in other educational situations, in different countries. The national authorities are examining the possibilities of their application in El Salvador.

4.4.2. Textbooks

As we have seen in chapter 3, the Biology *teaching guides* and the Demography *textbooks* represent the most significant contribution in terms of teaching materials which family education has made at secondary level.

The innovative aspect of the textbooks is that they are a learning instrument designed to involve the pupils in *theoretical and practical work* in which the teacher's task is essentially to provide guidance and co-ordination.

4.4.3. Reference Materials

The document entitled "*Family Education as a Component of the Rural Vocational Training Programmes*" was published in response to the need to support family education activities in the Adult Education projects.

This study was prepared by the Centre for Teaching and Learning Resources (CREA) (1) under the guidance of a Unesco expert. It provides a *conceptual framework* for activities connected with the preparation of teaching materials, and also sets out a *general programme* for the organization and development of these activities. The innovative aspect of this document is that it gives an opportunity, at the out-of-school level, *to devise and develop teaching materials locally*, providing the *kind of information and structure* which make it possible to overcome the educational dependence implied by the need to seek educational materials from specialized centres which are generally located far away.

The most significant innovative feature in the work is the "*Plan of educational materials needed for family life*" which envisages the development of four kinds of aids :

a) Information guides (to update the knowledge of the instructors),

b) Teaching guides (educational and methodological aspects connected with the proposed theoretical and practical work),

c) Visual aids ("rotafolios") illustrating topics of study,

d) Reference material (for grass-roots research, motivation, evaluation and orientation).

4.5. CONTRIBUTIONS TO THE DEVELOPMENT OF SCHOOL LIFE

The contents and methods introduced as a result of the implementation of the family education project in El Salvador has brought about changes in the teacher-student relationship and the life in the schools.

The more important of the changes are the following :

- The application of *ecological principles* in various activities related to the protection of the "school habitat" combatting erosion, tree-planting, etc.
- The use of knowledge on *population* and *health* in the search for solutions to the real problems of a community (the preparation of surveys to ascertain the quality of the health services, for example).
- The progressive elimination of various prejudices and taboos which have been assimilated into the lives of the people, particularly in connection with sex, and which both students and teachers brought to the school environment, like a personal kit.
- The organization of meetings with small groups of students, with the aim of developing their social awareness and team-work ability (health brigades, sport committees, cultural and social organizations, etc.).
- The encouragement of correct teacher behaviour towards pupils of both sexes and among the students themselves.
- The tendency to create in the school an atmosphere of openness and an ease of communication within a context of mutual respect.

In terms of the change in the teacher-pupil relationship, one is worthy of special attention. In twelve pilot schools, the pupils have been directly involved in planning and developing academic, administrative and socio-cultural activities through a "student board". To date the results of this "co-management" approach have been satisfactory. It serves to reinforce among both teachers and students an attitude of responsibility, a willingness to discuss matters and a readiness to work together.

---

(1) Under the Directorate of Educational Services.

CHAPTER 5

CONCLUSIONS

The *Family Education Project* has been essentially developed by national educational personnel with technical advice from Unesco and financial assistance from UNFPA. It is a valuable instrument of educational change within the context of an attempt to improve the education of children, young people and adults in El Salvador.

During the course of the project the original aims of "family education" have been translated into a gradual application in education of the knowledge and principles associated with the sexual, family, population and environmental behaviour of human beings. Combined with the utmost respect for the values of Salvadorian society as a whole. Accordingly, the centre of interest in family education has been *man* and his *all-round development*, which is to say, the harmonious cultivation of the different aspects of his personality.

Alongside this concern with human development, the project has put emphasis on the different *forms of interaction between the individual, society and the environment*, occurring in the process of meeting basic food, housing, health and educational needs, so that learners, individually and collectively may adopt *responsible attitudes* on these issues.

5.1. THE POPULATION GROUPS BENEFITTING FROM THE PROGRAMMES

The "target population" of the family education project comprises the following age groups in formal and non-formal education :

a) children who have begun basic education (7 - 15) ; their level of biological and psycho-social development is such that they readily take in the formative ideas which they meet in family education ;

b) young persons who have begun secondary education (16 - 18) ; at this age, young people tend to be confused about different aspects of their lives and need to be given a sense of balance and support to help them in making decisions about their work and their family and social life.

c) adults in rural areas ; they are fairly cut off from the centres of development and will not be able to overcome the precarious socio-economic conditions in which they live unless a vigorous effort is made to promote their human rights ;

d) parents of students attending formal educational courses ; as they lack a scientific grounding in the themes dealt with in family education, they need a guide to help them and their children to adopt a rational form of behaviour, free from taboos and prejudice ;

e) serving teachers ; they are the agents of change responsible for fostering new attitudes and patterns of behaviour in the learners ;

f) authorities, leaders and key groups in the community ; their degree of acceptance and prestige among different social groups puts them in a position to make an extremely useful contribution to the development of activities which necessitate certain changes in the traditional way of life of society.

5.2. THE EFFECTIVENESS OF THE ACTIVITIES UNDERTAKEN SO FAR

Generally speaking, the Family Education Project has had an extremely positive influence on the people of El Salvador. The project has not only been accepted, but has also achieved a satisfactory level of participation in the various activities.

Notwithstanding this success, *certain factors* in the overall national context continue to limit the impact of the project, particularly in its interaction with certain aspects of Salvadorian reality. These factors include in particular :

- the continuance of a high shortfall in educational coverage owing to the inadequate capacity of the educational system to absorb the growing population that has to be catered for ;
- high drop-out rate as reflected in the large numbers of children and young people who have to leave schools shortly after joining them ;
- publicity serving the cause of consumer society distorts the truth in various fields of action and knowledge, with a negative effect on the process of bringing about the intended changes in socio-cultural activities of the population ;

- the shortage of teachers and educational facilities adapted to the real situation of the peasant, whose life is devoted to subsistence activities and seasonal migrations.

While all these factors represent the different dimensions of the *structural problems of the country* and broadly transcend the scope of any educational project, they have a direct effect on the country in that education is one of the most significant factors in the process of change or of retrogression.

Table 21 presents a *final synthesis* of the *"Main forms of action developed by the Family Education Project"* within the framework of its contribution to the improuvement of education in El Salvador.

Table 21

MAIN FORMS OF ACTION DEVELOPED BY THE FAMILY EDUCATION PROJECT

1. Curriculum Revision	*2. Motivation and Training of the Teaching Personnel*	*3. Acquisition, Development and Selection of Curriculum Support Materials*
1.1. *Basic level :* – Natural Sciences – Social Studies – National language – Mathematics – Pilot implementation of reformed curricula at third cycle level 1.2. *Secondary level :* – Biology : Grade 1 – Demography : Grade 3 – Ecological Studies : Grade 3 1.3. *Adult education :* – Accelerated Basic Education Programme	2.1. Meetings to encourage and motivate key groups 2.2. Briefing courses for school principals, supervisors and teachers 2.3. Training of catalysing agents "agentes multiplicadores" 2.4. Training organizers 2.5. Training workshops on Curriculum Development with the population component 2.6. Training workshops on Functional Education with the Family Education component 2.7. Training workshops on Family Education in Rural Vocational Training 2.8. Latin American Seminar on Sex Education 2.9. CREFAL International Seminars (Unesco Regional Office in Santiago de Chili, etc.)	3.1. *Printed information :* Synopses of lectures, excerpts, etc. distributed in courses. 3.2. *Audiovisual material and equipment* used in the courses and other activities connected with the Project 3.3. *Teaching guides :* a) Basic level : "Teaching Methods for Family Education" b) Secondary level : "Human Reproduction" c) Adult Education : Modules 3.4. *Textbooks and manuals :* – Demography – Teaching aids 3.5. *Educational games*

A study of the contribution of population education to educational renewal and innovation in the Republic of Korea.

With the collaboration of J. E. Jayasuriya and A. Krystall, consultants

Population Education Section
Unesco Headquarters

49

TABLE OF CONTENTS

INTRODUCTION 59

CHAPTER 1 : DEMOGRAPHIC, ECONOMIC AND EDUCATIONAL CHARACTERISTICS 61

Demographic characteristics 61
Decline in Fertility since 1960 61
Distribution and Urbanization 61
Official Population Policy 62

Economic Development 62

Educational Development 63
Principles, Objectives and Guidelines of Korean Education 64

CHAPTER 2 : THE POPULATION EDUCATION PROGRAMME 66

Social and Educational Dimensions 66

Origins and Background 66

Aims and Objectives 67

Organization and Plan of Activities 67
Institutional framework 67
Programme Plan of Activities 67

Population Education Objectives 68

Implementation Strategy 70
Introduction into the Educational System 70
Introduction into Out-of-School Education 70
Extension of the Programme and its Diffusion 71

CHAPTER 3 : THE POPULATION EDUCATION CURRICULUM 72

Elementary and Secondary Levels : Content, Strategies, Teaching-Learning Methods and Materials 72
Selection of Content 72

The strategies for the introduction of population content 73
A. Separate Course approach 73
B. Unit approach 73
C. Integration approach 74

Teaching Learning Methods 74
Teaching-Learning Materials 74
Teacher Materials 71

Examples of Teaching-Learning Methods for Population Education 75
A. Method Focussing on Investigation 75
B. Method Focussing on Explanation 76
C. Method Focussing on Discussion - First Example 76
C. Method Focussing on Discussion of Family Size - Second Example 77
D. Method Focussing on the Use of Games 78
E. Audio-Visual Method 78
F. Problem Solving Method 79
Pupil Materials 80

Tertiary Level : Course Content, Teaching-Learning Methods, and Instructional Materials .. 80
Course Content 80
Teaching-Learning Methods 82
The Role of the Central Office in Relation to Tertiary Level Programmes 82

Out-of-School Programme : Course Content, Teaching-Learning Methods, and Instructional Materials 82
Teaching-Learning Materials 82

CHAPTER 4 : TEACHER TRAINING 84

In-Service Training 84
Programme 1 : Training of In-Service Trainers 84
Programme 2 : Training of School Administrators 84
Programme 3 : Training of Elementary School Teachers 84
Programme 4 : Training of Secondary School Teachers 84
Training of Key Personnel 84
Training of School Administrators 86
In-Service Training of Teachers 86

Pre-Service Teacher Training 87

Overseas Study Tours and Training 87

CHAPTER 5 : RESEARCH AND EVALUATION 88

Socio-Cultural Studies for Planning and Implementing Population Education 88

Research Related to Curriculum Development 89

Evaluation 89
Evaluation of Curriculum and Instructional Materials 89
Evaluation of Pupil Learning and Attitudes 89
Evaluation of Training and Teaching 89
Contribution of Mass Media in the Population Education Programme 90

CHAPTER 6 : THE INNOVATORY CONTRIBUTION OF POPULATION EDUCATION 91

Programme Structure and Management 91

Contributions to Korean Education 91
Content 91
Methods 92
Materials 92

Contribution to the Personal and Professional Development of Teachers 93
Teacher Training 93
Social Awareness and Responsibility 93
Personal Examination of Values 93
New Learning 93

Contribution to the Personal Development of Students 93

Contribution to School-Community Relationships 94

TABLES AND FIGURES

Pages

Table I Population Growth Rates 61
Table II Average Annual Rate of Increase (Percentage) 64
Figure I Population aged 6 and over by Educational Attainment 65
Figure II Objectives of Population Education by School Level and Subject 69
Figure III The Conceptual Structure of Population Education 72
Figure IV Course Content - Seoul National University 80
Figure V Programme Content for In-Service Trainers 85
Figure VI Training Programme for Administrators 86

INTRODUCTION

The principal aim of the present study is to identify the contribution of the Population Education Programme of the Republic of Korea to educational renewal with a view to deriving from the Korean experience lessons that might enhance its innovative potential in the educational context of the country itself, and be suggestive for other countries interested in the promotion of educational innovation. An additional aim is to provide an example of the formulation and implementation of a major educational programme with nation-wide coverage, so that the insights yielded by these processes can be utilized in connection with similar undertakings in Korea or elsewhere.

Although population education has its own set of specific problems, a great deal of the activities related to its programme development and implementation is applicable, with necessary adaptations, to a wide range of other educational programmes.

CHAPTER 1

DEMOGRAPHIC, ECONOMIC AND EDUCATIONAL CHARACTERISTICS

DEMOGRAPHIC CHARACTERISTICS

Recent variations in the growth and distribution of the population of the Republic of Korea have been influenced by political changes and war-time upheavals. After an almost stationary population growth rate for more than 200 years, population started to increase at the beginning of the 20th century, because of a decline in mortality, rather than increased fertility, and because of immigration. The end of the Korean War ushered in a period of rapid population growth, which, owing to the virtual absence of immigration, has been attributed to the post-war baby-boom and the decline in mortality due to improved public health measures, medical services and facilities (1). In the 1960's, a gradual decline in the growth rate of the population has been observed, as shown in Table 1 below (2).

Table 1 : *Population Growth Rates*

Census Year and Date	Enumerated Population	Annual Growth Rate
1955. September 1	21,502,386	1.02
1960. December 1	24,994,117	2.88
1966. October 1	29,159,640	2.71
1970. October 1	31,435,252	1.90
1975. October 1	34,688,000	1.99

The population is typically young. In 1975, 38.3 per cent of the population was under 15 years of age, 58.2 per cent was in the age group 15 - 64, and 3.5 per cent was aged 65 and over. Although there was little difference in this percentage distribution ten years earlier, the number of young children has been sharply declining. Currently, the number of children under 5 years of age is considerably smaller than those in the age group 5 - 9 years, and further expansion of elementary schools is no longer required.

Decline in Fertility Since 1960

The processes of industrialization, urbanization, and modernization coupled with a vigorous national family planning programme have undoubtedly contributed to the declining fertility which has slowed down the rate of growth of the Korean population. Another contributing factor in this regard has been the marriage-age pattern.

Although Korea has been known as a country of early and practically universal marriage, during recent years a rapid change has been taking place in this pattern. In 1955, 75 per cent of women aged 20 - 24 were married, but in 1975, only 37 per cent of women in this age group were married. For both males and females, the mean age at marriage rose by three years during this time, the age for males reaching 27 years and for females 23 years by 1976. Still very few persons remain unmarried after age 30.

In addition, traditional perceptions have been modified : the risk of child mortality is recognized to have decreased, and economic changes, including educational costs, have promoted an awareness of children as economic burdens, rather than productive assets (3). Changing attitudes towards family size have been influenced also by a diffusion of the nuclear family ideal, less emphasis on sex-preference for children, and awareness of the population pressure at both the individual and national levels (4).

The national family planning programme, established in 1962, also has had a significant effect on fertility with use of contraception increasingly adopted since 1965, especially among women between 30 and 49 (5).

These social developments and accompanying attitudes towards small family size continued during the 1970's, and are expected to persist, enabling Korea to maintain its present pattern of both low fertility and low mortality.

Distribution and Urbanization

Korea is one of the most densely populated countries in the world with a population of 36 million in an area of 98 thousand square kilometres of which only 22 thousand square kilometres are farmlands.

The rest of the country is generally hilly and mountainous, although its elevation is not high. The average population density has increased from 165.0 in 1944 to 319.2

---

(1) Economic and Social Commission for Asia and the Pacific. *Population of the Republic of Korea.* Country Monograph Series, No. 2, Bangkok, Thailand 1975, page 14.

(2) *Ibid.*, page 14 - abstract.

(3) Kwon, T.H., Lee, H.Y., Chang, Y, and Yu, Evi-Young. *The Population of Korea.* The Population and Development Studies Center, Seoul National University, 1975, p. 13.

(4) *Ibid.*, page 15.

(5) *Ibid.*, page 15.

in 1970. (1). However, pressure on the relatively scarce agricultural land is far more intense ; in 1970, the average density of population on agricultural land was calculated as 1,311.0 (2).

Urbanization is a relatively recent phenomenon. In 1944, less than one-fifth of the population (18.3 per cent) was classified as urban, but, by 1970, the proportion of urban residents had more than doubled (41.1 per cent) (3). Migration to the cities, which was particularly rapid throughout the 1950's and 1960's, reflected the economic problems of the over-populated rural areas and the attractions of urban employment. The three largest cities in Korea, *Seoul, Pusan* and *Daegu*, have experienced consistently high rates of population increase, largely attributable to in-migration. The growth of Seoul, the capital, has been particularly pronounced, and the city's population density was over 11,000 persons per square kilometre in 1975 (4).

Official Population Policy

The importance attached to a strong and viable *family unit* by the Government of Korea is illustrated in the following quotation from the Government publication, "Human Development in Korea" :

"Human development, specially as it strenghthens the family, is most important to the people of the Republic of Korea. Traditions concerning the family and the strong loyalties within the family are central to our society. This has included honor to the elder members, assistance to those in need of help, and education for the children. Although modernization and urbanization have made a powerful impact on the Korean family, these essential relationships and activities remain and have become more feasible through the growth of the national wealth" (5).

Promotion of the intertwined strands of human and family development has been viewed as a multi-sectoral task, involving on the one hand, a strengthened economy, and, on the other, increased provision of welfare services such as education and health. With the adoption of an official *population policy* in 1962, a national family planning programme was started as an integral part of the general health services of the country, and implementation was entrusted to a newly created Family Planning Section of the Bureau of Maternal and Child Health in the Ministry of Health and Social Affairs. A five-year target was set for reducing the rate of population growth to 2.0 per cent by the year 1966. It became clear quite soon that too short a period had been set for achieving the target of a 2.0 per cent growth, and it was considered reasonable to aim at achieving the target by 1970. The Government set about establishing a network of family planning clinics in different parts of the country, and, as a result of the "Family Planning Encouragement Plan" of 1963, laws barring the import of contraceptives were repealed and local manufacture of these items was made possible (6). Since then, the Government has continued to foster human development through the family planning programme and has directed various ministries to cooperate in its promotion. Consequently, the provision of services or the dissemination of information regarding population and family planning has been integrated into the activities of all major *Government ministries*, including the *Ministry of Education's* programme of population education.

Non-governmental organizations such as the Planned Parenthood Federation of Korea and the Korean Institute for Family Planning lent their active support to the Government. The former conducted an energetic information-education-communication campaign, while also operating a few clinics, and the latter undertook the training of governmental family planning workers and research and evaluation activities. The Mothers' Association, first formed in 1958, also significantly assisted the national family planning movement by establishing several thousand Mothers' Clubs, the members of which actively participated in disseminating the ideal of a small family.

The current *Five-Year Economic Development Plan*, 1977 - 1981, states that population growth will be maintained at an annual level of 1.6 per cent by reducing the birth rate and encouraging out-migration. It also emphasizes the Government's intention to promote balanced regional development and to apply curbs to population concentration in large cities. Recognizing the importance of changing attitudes towards population questions, the Plan states that the following steps will be taken "to disseminate information on the population problems and to encourage a new attitude toward childbearing and family relationships :

(a) A positive attitude towards family planning will be encouraged, the traditional son-preference attitudes will be discouraged.

(b) Awareness of the need to reduce the birthrate will be increased by considering population concerns in all government policy measures.

(c) The mass media will be asked to assist in motivation campaigns and population education. Education and information on family planning will also be disseminated through schools, business houses and factories" (7).

Other measures referred to in the Plan in relation to population problems are the promotion of out-migration, optimal dispersal of population, provision of increased employment, and expansion of contraceptive campaigns.

ECONOMIC DEVELOPMENT

Although Korea is by no means richly endowed with natural resources, the country has achieved rapid economic development through vigorous government efforts at modernization in the past one and half decade. Beginning in 1962, the Korean Government instituted the First (1962 - 1966), Second (1967 - 1971), Third (1972 - 1976) and Fourth (1978 - 1981) Economic Development Plans. These Plans have been implemented with determination in order to overcome such handicaps as scarcity of land, lack of natural resources, territorial division and disastrous war-time destruction and to achieve the Government's policy goals of economic development and social welfare.

---

(1) *Population of the Republic of Korea, op. cit.*, page 25.
(2) *Ibid.*, page 25.
(3) *Ibid.*, page 31.
(4) *Ibid.*, page 26.
(5) Government of the Republic of Korea. *Human Development in Korea*, August 1974, page 1.
(6) *Human Development in Korea*, op. cit., page 2.
(7) Government of the Republic of Korea. *The Fourth Five-Year Economic Development Plan, 1977 - 81.* Seoul, 1976, page 72.

The major programme objectives of all Development Plans have been the balanced promotion of both agriculture and industry, supported by an advancing scientific technology. Growth of *agriculture*, the traditionally dominant economic sector, engaging close to half (46 per cent) (1) of the gainfully employed population, has been relatively slow. In addition, since agriculture in Korea is a family occupation, surplus farm labour tended to increase the marginal costs of production. Therefore, all Plans have placed emphasis on agricultural development and modernized farming skills to achieve self-sufficiency in food production and increased farmhold (and fisherman's) incomes and living conditions.

The development of *industry*, the second major economic thrust, was a national imperative, due to war-time loss. Therefore, the Plans have stressed the promotion of import substitutes (cement and fertilizer), expansion of exports (such as textiles, electronics and plywood) and the development of heavy and chemical industries. Growth in manufacturing was rapid throughout the 1960's, and by 1971, the most important manufactured products were chemicals, fertilizers, rubber and plastics (23 per cent of total output) ; food, beverages and tobacco (28 per cent) ; textiles, wearing apparel and leather (20 per cent) ; and metal products and machinery (12 per cent) (1). Mineral production, especially the most important export, tungsten, also grew throughout the period. The development of the energy industries, such as electricity and coal, has also been an important development objective of the Government.

Due to the intensive development efforts, which began in 1962, Korea has been able to attain a high growth rate achieved by few other countries in the world. The gross national product increased at an average annual rate of 10 per cent during the last decade. Per capita income increased rapidly to 110 dollars in 1966, 376 dollars in 1973, over 500 dollars in 1974, and over 1,000 dollars in 1978. With higher incomes, the pattern of consumption improved in terms of both quantity and quality. Private consumption expenditure recorded a 2.6-fold expansion from 1960 to 1973. Savings recorded a 15.1-fold increase during the same period. Until 1961, 58 per cent of private consumption consisted of expenditure on food, but in 1973, the figure was only 45.7 per cent.

Improved *public welfare and standards of living* have been equally important development goals of all Plans which have included programmes to construct single-family dwellings, establish maternal centres, control pollution and improve labour conditions. The expansion of the social security system which began to improve with the increase of employment and income in the course of industrialization after 1962, also has been a major programme. A pension scheme for civil servants and teachers was introduced, and the medical insurance system was expanded in 1974. It is conceived in such a way that, by 1980, all of the nation's citizens will benefit from these social security schemes.

The Government also has devoted considerable effort to the extension of health and medical care. In the 1960's, a programme was completed that established one health centre in each country in the nation. Expansion of medical care for the entire population, especially for low-income farmers and fishermen, has reduced the incidence of tuberculosis, leprosy and parasitic diseases. The strict enforcement of anti-epidemic measures has led to the "disappearance of certain communicable diseases" (3). These health improvements also have led to a fall in the death rate to below 10 per 1,000 (4).

The *Saemaul Undong* (New Community Movement) has changed both the environment of farming and fishing areas and that of the cities. This mutual assistance movement, which was initiated by President Park, has spread all over the country, improving the living environment and changing old ways of thinking, combined with measures for raising personal income and modernizing the pattern of living. The movement has laid emphasis on improving housing (roofs), fences, roads, sanitation facilities, etc. With the passage of time, it has spread from the rural communities to the cities, and the urban schools and factories reflect its beneficial effects.

Building on these achievements, the direction of Korean development as set forth in the current Development Plan (1977 - 1981) is towards increased growth, efficiency and equity, more specifically :

1. Building economic structure for self-sustaining growth.
2. Increasing equity in income distribution through social development.
3. Improving technology and the efficiency of the economy.

EDUCATIONAL DEVELOPMENT

National leaders and officials and the Korean people have shown a long-standing and strong concern for and commitment to educational development. Various reforms have extended the scope of the classical Confucian education which was limited to males and almost entirely to children of the upper class. After 1882, state-operated schools were no longer restricted to children of the affluent class (5), and soon there after, the public service examination based on Confucian classics was abolished.

---

(1) *Population of the Republic of Korea, op. cit.*, pages 8 - 9.
(2) *Population of the Republic of Korea, op. cit.*, page 9.
(3) *Human Development in Korea*, op. cit., page 1.
(4) *Ibid.*, page 1.
(5) *Population of the Republic of Korea, op. cit.*, page 59.

Towards the end of the nineteenth century, there was further expansion of the educational system through the work of Christian missionaries.

"The mission schools introduced several revolutionary innovations to Korean schooling : education for common people, which involved some subsidizing of students ; education of women as well as men ; and popularization of the Korean phonetic script, *han'gul*, as opposed to the Chinese calligraphy of traditional education" (1).

Mission schools also introduced a new educational emphasis through subjects such as Geography, History, Arithmetic and Science, as well as Christian religious thought and the ideals of Western society (2). Further modernization of the curriculum was effected by a programme of limited public education which placed emphasis on elementary and technical education which was instituted in the early 1900's. A system of common (elementary), higher common (secondary), industrial and special schools was established, and the following years saw the gradual expansion in the numbers of these schools, as well as the founding of normal schools and a university.

"The educational system of the Republic of Korea was radically transformed immediately after the Second World War. A new system based on the United States experience was established by the Education Law of 1949" (3).

The present educational system includes six years of elementary education three years of middle school, three years of high school, two years of junior college and four to six years of college or university education. The Constitution guarantees every citizen equal educational opportunities and access to elementary education for all children.

The rapid and extensive expansion of the educational system has been a notable achievement. As shown in Table II, between 1955 and 1970, the growth in school attendance has greatly exceeded the rapid growth of the school-age population. Increased access to educational opportunity has required massive Government investment to provide the requisite teaching force and educational institutions, and consequently "funds for schools is one of the largest items in the national budget" (4).

Today, elementary education is compulsory through grade 6, and school attendance among the children in the age group 6 - 11 years now exceeds 98 per cent. Secondary education has "reached the point of achieving mass education" (6) with more than 80 per cent of middle school-age population (grades 7 - 9, or 12 - 14 years of age) in school. Enrolment in grades 10 - 12 is also increasing ; nearly 80 per cent of middle school graduates proceed to high school. Approximately 30 per cent of high school graduates are receiving higher education. In addition, the disparities between male and female enrolments have narrowed rapidly, at least through the level of middle school.

Table II (5)

Average Annual Rate of Increase (Percentage)			
1 Period	2 Total population	3 Population 6 - 24 years	4 Total attendance
1955 - 1960	2.88	2.52	3.75
1960 - 1966	2.68	2.95	6.62
1966 - 1970	1.90	2.82	4.90

"Even though the actual proportions of pupils not completing the course of elementary school after the entrance are slightly higher for girls than for boys because of a strong boy preference in Korean society, there seems to be universal concensus nowadays that children regardless of sex should attend at least elementary school. At the level of secondary and higher education, the increasing participation of girls has been noteworthy, although the dominance of boys over girls is still the case" (7).

The concurrent increases in educational attainment can be seen in Figure I (next page). As regards persons aged 60 years and over, less than 20 per cent had not received any formal education as of 1975. Illiteracy problems are practically non-existent among adults below 50 years of age, and in 1970, it was estimated that 94.4 per cent of the males and 81.0 per cent of the females aged 15 years and over were literate.

Principles, Objectives and Guidelines of Korean Education

All educational endeavours in the Republic of Korea are guided by the basic principle of "a commitment to providing the greatest service for the benefit of mankind" (8). "This commitment can be fully realized only by persons who are mature, well-rounded, self-reliant and fully conscious of their duties as citizens of their own country as well as of the world" (9). Accordingly, the Government's general objectives for the educational system have been formulated in terms of the characteristics to be promoted by all educational activities and programmes :

"From a comprehensive point of view, the objective of education at all levels is to concentrate on the formation of the essential human characteristics. The qualities which must be combined harmoniously to produce the well-integrated personality pattern of an educated person may be listed as :

---

(1) Clare, K.G., et al. - *Area Handbook for the Republic of Korea*, U.S. Government Printing Office, Washington D.C., 1969, page 112.

(2) *Ibid.*, page 112.

(3) *The Population of the Republic of Korea, op. cit.*, page 60.

(4) *Human Development in Korea, op. cit.*, page 1.

(5) *The Population of Korea, op. cit.*, page 63.

(6) *The Population of Korea, op. cit.*, page 61.

(7) *Ibid.*, page 61.

(8) Ministry of Education, Republic of Korea. *Educational Development in Korea, 1976-77 / 1977-78.* Report to the 37th Session of the International Conference on Education, Geneva, July 1979, page 1.

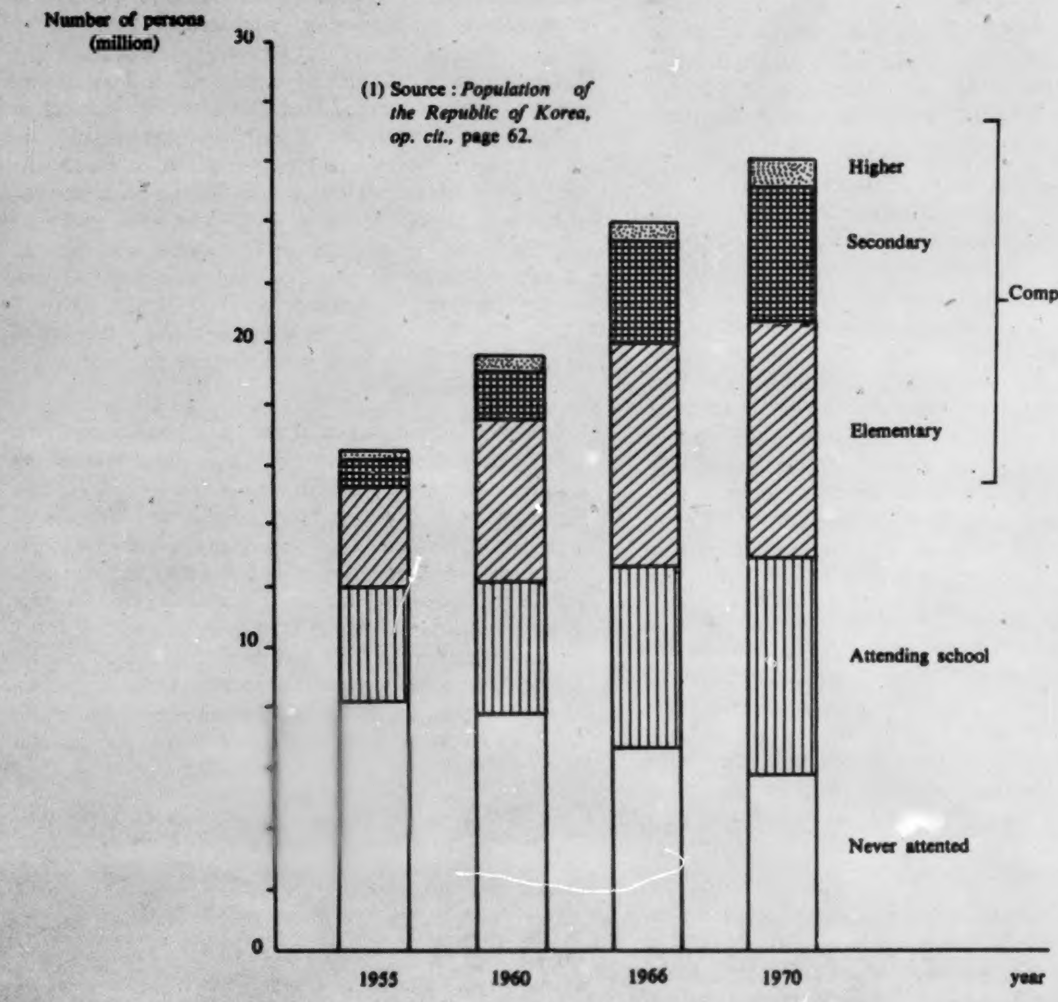
(9) *Ibid.*, page 1.

Autonomy and Resourcefulness
A Sense of Morality
An Appreciation for Beauty
Capability and Competence
Mental and Physical Health" (1).

The Government has also developed the following general educational guidelines to promote the achievement of these objectives, and these, in turn, have guided the goals of each level of the educational system and their curricula and courses of instruction :

1. To impart the knowledge and foster the habits needed to develop and maintain physical health while fostering a spirit of perseverence.
2. To contribute towards preserving and developing the autonomy of the nation by nourishing a spirit of patriotism and love for one's people.
3. To ensure the transmission of traditional Korean culture while stimulating creative contributions to the cultural achievements of all mankind.
4. To promote creative and rational activities based on a spirit of inquiry and a capacity for scientific conceptualization.
5. To promote social harmony based on a spirit of trust, cooperation and respect through imparting a love of freedom and a sense of duty.
6. To encourage a meaningful way of life, and appreciation for the beauty of nature and a fruitful use of leisure time through cultivating an aesthetic sense including an appreciation and creative capacity for fine art.
7. To develop capable individuals with useful occupational skills and a willingness to work hard and live a sensible lifestyle which eliminates wasteful consumption" (2).

Figure 1 : *POPULATION AGED 6 AND OVER BY EDUCATIONAL ATTAINMENT*



(1) Source : *Population of the Republic of Korea, op. cit.*, page 62.

---

(1) *Educational Development in Korea, op. cit.*, pages 4.

(2) *Ibid.*, page 1 - 2.

CHAPTER 2

THE POPULATION EDUCATION PROGRAMME

SOCIAL AND EDUCATIONAL DIMENSIONS

The phenomenal increase in the Korean population was attributed to the increasing life expectancy and the high rates of population growth in the pre-1960 years - a momentum that was only insignificantly decelerated by the reduction in birth rates after 1960. Apart from the problem of absolute growth, the migration of people into cities was seen as giving rise to "multifarious problems, including housing problems, traffic confusion, unemployment, shortages of water supply, crime, etc." (1). It was recognized "that population problems constitute obstacles to national development", that "population policy must be based on public awareness of population problems if it is to yield meaningful results", and that education is the instrument for creating public awareness and bringing about value changes (2).

The role of education was specially emphasized as the means for overcoming "the recognized limitations of medical-biological approach in effecting further population control when it runs counter to the traditional values generally held in a society" (3). Surveys highlighted the fact that the "level of awareness and motivation on the part of students" was low (4). Education was also necessary to impress upon the individual the fact that "the number of children of each family is not a matter affecting individual life alone" and that "it is directly linked to problems affecting a nation at large" (5). A higher quality of individual life linked to national development was envisaged as an important goal that required emphasis on the development of rational thinking and decision making in relation to the future.

The various statements of official population policies, as well as the Information-Education-Communication activities undertaken by voluntary organizations and the mass media, created a climate of acceptance for population education among teachers, more mature students, parents and the public at large. Furthermore, there were no issues of racial, linguistic and religious balance to serve as impediments, as the Korean population is racially and linguistically homogeneous, and there is a national tradition of religious harmony.

Accordingly, population education has been accorded increasing prominence in Korea, beginning with activities of the Central Education Research Institute (C.E.R.I.), in the early 1970's, and continuing with the programme established in the Master Plan for Population Education of 1974, prepared by the Ministry of Education, which provided a systematic and comprehensive framework for all population education activity, directly linked to the nation's development goals.

ORIGINS AND BACKGROUND

Beginning in June 1970, the Central Education Research Institute, with assistance from USAID and the Population Council, undertook a number of studies, published later under the title *Curriculum Improvements for Population Education in the Elementary and Secondary Schools of the Republic of Korea* (6), in order to ascertain the knowledge and attitudes of elementary and secondary school teachers and students concerning population matters, and to analyze and review the material on population issues which was then contained in elementary and secondary school textbooks. These studies showed that the extent of knowledge about population problems on the part of teachers and students was not as satisfactory as expected, and that topics dealing with population problems occupied only a very small part (0.37 per cent) of the content of existing textbooks with much of the treatment being casual and limited to the presentation of population data.

The need for the inclusion of population education in the textbooks having been established by these studies, an outline was prepared of topics considered to be suitable for inclusion at the elementary middle, and high school levels. With financial assistance from the United Nations Fund for Population Activities (UNFPA) and technical advice from Unesco, work on a teacher's guide for population education in Social Studies for grades 1, 2 and 3 of the elementary school was then initiated by the Institute. Before this work was concluded, the Institute ceased to function, and the project for the preparation of this teacher's guide was transferred to the Korean Educational

---

(1) Kim, Sooil and Shin, Kun Za. *Objective Elaboration of Population Education Instruction in Elementary and Secondary Schools*, Seoul, 1977, page 2.

(2) *Ibid.*, page 3.

(3) *Ibid.*, page 5.

(4) *Ibid.*, page 7.

(5) *Ibid.*, page 5.

(6) Paik, H.K., Yong, Y.C., Kim, S., Shin, K.Z., Yi, J., *Curriculum Improvements for Population Education in the Elementary and Secondary Schools of the Republic of Korea* - Central Education Research Institute, Seoul, 1972.

Development Institute (K.E.D.I.) in December 1973. Meanwhile, the Regional Adviser for Population Education of the Unesco Regional Office for Education for Asia, located in Bangkok, succeeded in interesting four prestigious universities, namely Seoul National University, Ewha Woman's University, Yonsei University, and Korea University in population education, and two of them made requests for funds from the UNFPA.

As a result of the work initiated by the Central Education Research Institute and of the needs identified during this preliminary stage, the Ministry of Education became interested in a *nation-wide population education programme*. The services of Unesco's Regional Adviser for Population Education were thus requested to prepare a master plan for population education, for submission to UNFPA's financial assistance.

AIMS AND OBJECTIVES

The Population Education Project Document, was signed on 1 March 1974, between the Government of the Republic of Korea and the United Nations Fund for Population Activities (UNFPA), embodying what is generally known as the Master Plan for Population Education.

Set out with the brevity inevitable in a project document, the *general aims* of the Population Education Programme were presented as follows :

"1. To institutionalize population education as an integral part of the curriculum at all levels in Korea, thereby assisting in the development of an insight into population problems and responsible decision making and behaviour in population-related matters.

2. To establish linkages between efforts of the educational system and those of other spheres of national activity in order to promote co-ordinated and meaningful action in relation to population issues" (1).

The elaboration of these general aims was based on the formulation of general objectives for population education and specific objectives for the different levels of the educational system as well as their translation into curriculum designs and materials.

The *general objectives* embracing the national socio-economic dimension of population education were defined as follows :

1. To help students to acquire an understanding of both the concepts and phenomena of population.
2. To help students to recognize the inter-relationships between population components (growth, distribution) and quality of life.
3. To help students to understand the inter-dependence of man and his bio-physical environment.
4. To help students to examine critically the web of socio-cultural factors that lead to high fertility.
5. To help students to cultivate the capacities necessary for responsible parenthood.

ORGANIZATION AND PLAN OF ACTIVITIES

Institutional Framework

The responsibility for the *management* of the Population Education Programme was given to the Central Office for Population Education, which was to be established within the Ministry of Education, under the general supervision of the Vice-Minister of Education who would officiate as the Director of the project. Under him, there were to be a Chief Executive Officer, a Coordinator and supporting staff. A Population Education Advisory Council, with the Vice-Minister as the Chairman, was to be set up to advise the Ministry of Education on all matters relating to the project. Advisory Committees for Curriculum and Materials Development, Training, Demonstrative College Programmes, and Research and Evaluation were also to be constituted. The Central Office, had responsibility to promote, co-ordinate and supervise all activities relating to population education and to ensure their *implementation* through a variety of institutions representing a range of specializations and diversity of expertise. Participating *institutions* were to include universities, both public and private, colleges of education and teachers' colleges, and autonomous institutes, such as the Korean Educational Development Institute and the Korean Institute for Research in the Behavioural Sciences. *Administrative personnel in education*, such as officials of the various bureaus of the Ministry of Education, superintendents of city and regional school boards, and principals of schools were to be all involved in one way or another, through participation in planning meetings, seminars, study tours, etc. Provision for consultant services also made it possible to enlist the *cooperation of individuals with special competencies* who were not directly associated with programme implementation. Thus through UNFPA and Government funding and technical advice from Unesco, the variety of institutions and personnel involved was to give *the Population Education Programme the character of a major national endeavour, co-operatively undertaken by the educators of the country*.

Programme Plan of Activities

The Master Plan established a comprehensive framework of activities, designed to promote population education in *elementary*, *secondary* and *higher* education institutions, including teacher training colleges, through a series of inter-related components, comprising basic research to provide baseline data, curriculum and materials development for elementary and secondary schools, the training of key personnel, administrators and teachers, and finally pilot programmes at the college level.

Basic research, which was to be sub-contracted to institutes and universities, was intended to provide the Programme with initial insight into the current *population knowledge and attitudes of students and teachers* at the primary and secondary levels and to *identify the variables that affect attitudes about population matters* in order to *develop a conceptual structure for population education.* Basic research was further intended to *assess* the impact of population education on changes in students' attitudes and to identify *and analyze the impact* of the educational environment on students' awareness and acceptance of population education, as a part of on-going Programme evaluation and reformulation.

---

(1) Ministry of Education, Republic of Korea. *Plan of Operation, Population Education Project*. Seoul, 1974, page 1.

All work in connection with the *development of curriculum and materials for the school sector* was to be undertaken by an institution designated by the Ministry of Education, and a similar provision was made for the development of *curricular materials for the out-of-school sector* by a second institution. Both institutions were to undertake programmes of *formative and summative evaluation* of their curriculum development activities.

Teacher training was divided into four training programmes for different target groups, which were then to be assigned to a variety of educational institutions. *Faculty members* from a number of Junior Teachers' Colleges and Provincial In-service Training Centres and *school principals* were to be trained at courses of *ten weeks'* duration *at five universities. Vice-principals and supervisors* were to be trained at courses of *five days'* duration *at eight universities. Elementary teachers* were to be trained at courses of *five days' duration organized by Junior Teachers' Colleges and In-service Training Centres. Secondary teachers* were to be trained at courses of *five days'* duration *at fifteen universities and eleven Provincial In-service Training Centres.*

For the *Demonstrative College Programme* component, four universities were to be designated by the Ministry of Education *to develop course materials* for the inclusion of population education in college programmes.

The Population Education Project, which became operational with the setting up of the Central Office for Population Education in March 1974, was funded for a period of three years and eight months, from 1 May 1974 to 31 December 1977.

By the middle of 1977, it became clear that, although the achievements of the Population Education Programme were considerable and had laid a firm foundation for Population Education in the nation's educational system, a great deal yet remained to be done to ensure nation-wide diffusion and institutionalization. With this end in view, plans were made for an extension of the project from January 1978 through 1980.

The major activities for this second phase of the project included the completion of on-going activities and the development of new dimensions to extend the Programme into additional areas, specifically : completion of the in-service training of teachers ; expansion and institutionalization of pre-service teacher training programmes ; development of programmes for school leavers and parents, with accompanying training of teachers to take charge of these programmes ; revision of existing instructional materials and preparation of additional materials, particularly audio-visuals aids ; further promotion of the diffusion of population education through publications, mobile unit services, televison programmes and the establishment of a Population Education Association with provincial chapters ; provision of opportunities of overseas travel for selected key personnel ; and finally, the undertaking of a comprehensive programme of evaluation.

POPULATION EDUCATION OBJECTIVES

Having established the general objectives embracing the national, social and educational dimension of Population Education, the next task was to determine the specific objectives and the school levels at which action could be most appropriately taken to achieve them. At the elementary school level, it was decided to focus on enhancing awareness of population problems based on population concepts and phenomena. The middle school was to provide for continuity with the work done at the elementary school level, and also to place emphasis on population problems and the management of the environment. It was also hoped "to bring about a rational change of population consciousness in the process of socialization" (1). At the high school level, the emphasis was placed on providing for more advanced treatment of the subjects studied at the lower and middle school levels, taking into account the fact that the students were coming on to their reproductive ages and ready to consider such issues as marriage and future parenthood.

The specific objectives were considered also in relation to the various subjects provided in the school curriculum. Figure II shows the general objectives of population education and their relationship to the specific objectives according to the subjects in the school curriculum. *Mathematics* provided opportunities for the quantitative aspects of population analysis. Korean *history* lent itself to providing an overview of population change in historical perspective. Population phenomena at present and in the future were appropriate for inclusion in *social studies.* All of these were related to Objective 1. The social, economic, health and environmental problems arising from rapid population growth and migration, linked to Objective 2, suggested themselves for inclusion in *natural science, biology, physical education,* and *social studies.* The equilibrium of the ecosystem depending upon an optimum level of population, responsible resource utilization and a regard for the conservation of the environment, linked with Objective 3, were appropriate for inclusion in *natural science, biology, vocational education* and *home economics.* Objectives 4 and 5 lent themselves for consideration within *social studies* and *home economics.*

The figure shows the extent to which the objectives could be related

- *at the elementary school level* to arithmetic, Korean history, social studies, natural science, physical education, and vocational education,

- *at the middle school level* to mathematics, Korean history, social studies, science, physical education, and home economics, and

- *at the high school level* to mathematics, Korean history, social studies, biology, physical education, and home economics.

---

(1) Adapted from Kim, Sooil and Shin, Kun Za., *op. cit.*, page 27.

Figure II : *OBJECTIVES OF POPULATION EDUCATION BY SCHOOL LEVEL AND SUBJECT*

General Objectives / School level and Subject	Elementary School						Middle School						High School					
	Arithmetic	Korea history	Social studies	Natural science	Physical education	Vocational education	Mathematics	Korea history	Social studies	Science	Physical education	Home economics	Mathematics	Korea history	Social studies	Biology	Physical education	Home economics
1. To help students to acquire an understanding of both the concepts and phenomena of population.	*	0	0					0	0				*	*	0			
2. To help students to recognize the interrelationships between population components (growth, distribution) and quality of life.			0	*	*				0	*	*				*	*	*	
3. To help students to understand the interdependence of man and his bio-physical environment.				*		0				*		0				*		0
4. To help students to examine critically the web of socio-cultural factors that lead to high fertility.			*			0			*			*			*			*
5. To help students to cultivate the capacities necessary for responsible parenthood.			*			*			*		0	*			*		*	*

* : Related
0 : A little bit related

Note : This has been adapted from Table 3 (page 29) of *Objective elaboration of population education in elementary and secondary schools* by Kim, Sooil and Shin, Khun Za, Seoul, 1977.

The achievement of the general objectives was seen to be dependent on the acquisition by students of a knolwedge base, and following upon it value-analysis and decision-making skills, which were conceptualized in the following terms :

– Knowledge base
The knowledge base concerning population concepts and phenomena would enable students to analyze and interpret population situations. For example, an understanding of the consequences of rapid population growth on the individual, family, society and nation would increase awareness of the significance of the population variable as a factor affecting quality of life.

– Value analysis
The techniques of value analysis would enable students to define the qualities of ideal family and social life in the socio-cultural context of the country. These skills would also enable students to identify and analyze the social and cultural factors that affect fertility behaviour

– Decision-making
The development of students' capacity to make decisions would enable them to take into consideration the possible consequences of alternative courses of action on themselves and on others, including the community and the nation at large, and assist them to appreciate the need to make decisions that would lead to a higher quality of life taking into account space and time frames that extend from the near and the immediate to the distant future.

IMPLEMENTATION STRATEGY

Introduction Into the Educational System

Almost as soon as the idea of population education was mooted, the Government decided that population education should be introduced throughout the elementary and secondary levels. It was also decided to encourage tertiary level and out-of-school programmes. The objectives of population education and its placement within the curricula for the *primary and secondary levels* have been presented in the previous section, and the corresponding curriculum materials will be detailed in the following chapter. Therefore, attention is here directed to the characteristics and strategies for introducing population education at the tertiary level.

At the *tertiary level*, it was decided to encourage four selected universities to explore various approaches and modalities for incorporating population education. Their activities will be presented in turn.

Seoul National University identified *nine courses* at the undergraduate level for the *inclusion of population education* : anthropology, Korean history, social work, home economics, sociology, demography, geography, ecology, genetics, and biology. More details regarding the content of these courses are given in Chapter III. The University also published a *book of reading materials* related to population problems, entitled "*Population and welfare*".

Korea University organized a programme of interdepartmental *lectures* for senior medical students in order to acquaint them with population concepts, problems and demographic data. Two lectures, with the titles "What is futurology ? " and "Economic Development and Population Problems" were specially delivered for the benefit of students in the General Studies division. Later, a two-credit *elective course*, entitled "Population Growth and Social Development" was developed for students in General Studies courses, and *a book* entitled "*Population Problems*" was prepared to serve as reading material for this course. This book was subsequently revised and enlarged under the title : "*Population explosion and the Future*".

The *introduction* of population education in *pre-service training programmes* for teachers by Korea University is described in Chapter 4.

Yonsei University organized four *lectures* with the titles "Population and the Future", "Male Preference", "Obstacles to Family Planning", and "Population Control Policy in Korea" for attendance on a voluntary basis by interested students. The University also took action to *integrate population education into its pre-service teacher training* programmes which also is described in Chapter 4.

Ewha Woman's University pre-tested a course in population education for inclusion in the field of Social Science in the General Studies course. The provisional course content was decided upon by a population education committee, team-teaching was the instructional method, and the course was piloted four hours a week with volunteer students.

The results of the pilot course, in terms of both the content and the learning materials such as visual aids, encouraged the *establishment* of a three-credit *elective course* in Population Education with the title "Population and the Future" in the General Studies course

Introduction into Out-of-School Education

The focus of the Master Plan for population education to be undertaken by the Ministry of Education was primarily on school education, and no extensive participation in the out-of-school sector was contemplated. The development of a *set of materials* for out-of-school youth and adults was, however, envisaged as these materials would be a valuable resource for teachers and other educators who might get opportunities of working with out-of-school populations. The funds earmarked under this component were allocated to the Korean Institute for Research in the Behavioural Sciences.

The first activity of the Institute in this regard was to conduct a survey of the institutions and agencies engaged at that time in various types of adult education programmes : the Central Training Centre of Government Officials, the Korean Women's Association, Vocational Training Centres and Adult Classrooms that were participating in the community education movement, and a military organization. Some of these centres and agencies were visited by researchers in order *to study the possibilities of incorporating population education* in their on-going educational programmes. The content of the programmes as well as the managerial practices of these centres and agencies were studied with a view to ascertaining the kinds of curriculum and instructional materials that might be relevant to the target audiences. Further details regarding these activities are given in Chapter 3.

Extension of the Programme and Its Diffusion

The Population Education Programme envisioned by the Ministry of Education was essentially a programme with *nation-wide coverage*, at *the elementary and secondary levels* of education. In regard to these two levels, it was the responsibility of the Ministry to ensure the training of a sufficient number of teachers, through programmes of pre-service and in-service training, to reach all the children in elementary, middle and high schools, and the provision of adequate materials for population learning to schools.

In so far as the *tertiary level* was concerned, the Ministry encouraged a large number of institutions to develop programmes, through persuasion and financial inducements of a limited nature.

In relation to the *out-of-school sector*, the Ministry's role was limited to ensuring that a carefully designed set of materials was made available for use by interested parties. These materials have been used extensively by the Korean Institute for Family Planning in their national training programmes and by the Planned Parenthood Federation of Korea in their local training programmes. These materials are currently being revised by the Korean Educational Development Institute in the light of feed-back from users. The Ministry also recognized its responsibility to reach the parents of pupils exposed to the population education programme so that they would understand both the population issues and the educational objectives of their children's learning. It was anticipated that the parents would be reached through the teachers who were participating in the in-school programme.

CHAPTER 3

THE POPULATION EDUCATION CURRICULUM

ELEMENTARY AND SECONDARY LEVELS: CONTENT, STRATEGIES, TEACHING-LEARNING METHODS AND MATERIALS

Selection of Content

Reflection on the goals and nature of population education made it abundantly clear that "there is no single discipline which readily offers a body of knowledge for population education" (1). *The content had to be selectively drawn from fields of study such as demography, economics, sociology, health science, physical science, biology* and therefore required the collaboration of scholars from these disciplines and professionals in the field of education. A team of such scholars, having studied the available literature on population education, and the relevance of population in the Korean context, identified more than thirty themes to constitute the *conceptual structure of population education*, which is illustrated in Figure III below.

Fig. III – *THE CONCEPTUAL STRUCTURE OF POPULATION EDUCATION*

1. *Human reproduction and family planning*

Reproduction as a natural phenomenon of human life

- Knowledge of human reproduction process and phenomenon, its importance and implications
- The direct causes of population growth
- Attitudes and behaviours as regards fertility

Physiological maturation and emotional maturation

- Physical and psychological changes, common and difference between the sexes

Sexual behaviour: physical, social and psychological factors

- Knowledge of fertility behaviour in relation to physical social and psychological factors
- The relationship between sexes
- Infancy and adulthood according to sexes

Men's and women's occupations, roles and functions; popular views on these issues

Family planning practice in different cultures and times

- Birth control techniques, pregnancy frequency and intervals between chilbearing
- Factors affecting maternal health and physical and mental health of children

Family planning and population control

2. *Family size and standards of living*

Standards of living and labour force and employment opportunities

Family size and the family's economic situation, economic sufficiency

Culture and customs and expected standards of living

Standards of living and availability of public services

3. *Population and the Environment*

Human beings as part of the ecosystem

- Knowledge of the common and different properties between man and other living things

Man's domination of the environment with his creative intelligence

Man and industrial development: relationships between society and the environment

4. *Population and the Economy*

Public services, institutions, capitals and the improvement of quality of life

Public services and population changes, notably in size and distribution

Population growth in industrialized and developing countries

The causes of population congestion

---

(1) Byun, Yung Kye et al. *Approaches to Curriculum Organization for Population Education.* Seoul, 1975, page 11.

Figure III : *cont'd*

Conditions for trade and industrial development in relation to population

Individuals' savings as they affect investment, industrial development and the nation's economic growth

The effects of population growth on the savings

High quality of techniques, education, labour, leadership and economic growth

Effects of industrial development on mortality and fertility rates

5. *The effects of population phenomenon on human life*

The problems of natural resources and their limits

Causes and consequences of environmental pollution

Density, diseases, poverty and illiteracy problems

Development of communication and transportation

National development and available resources and population size

6. *Population policies and programmes*

Social customs and religious values affecting national population policies

Policies affecting population, notably migration, fertility and mortality

International organizations and assistance in support of population programmes.

Each of these themes was developed into more specific items through the elaboration of detailed sub-contents for introduction into the school curriculum.

To find an appropriate point for the inclusion of the population education components, each item in the list of subcontent was examined in relation to the content of the existing curriculum of elementary, middle and high schools. This task had, in fact, a comprehensive perspective as indicated by its objectives :

"First, to determine the knowledge to be added and at what grade level they should be included ;

Second, to determine the continuity, sequence and integrity of the population contents ;

Third, to determine the relative effectiveness of the unit and integration approaches by grade level and subject matter",

and led to an identification of the precise manner in which instructional materials should be developed.

The Strategies for the Introduction of Population Content

In order to determine the way that the population content would be introduced into the subjects at various grade levels, a careful consideration was given to the advantages and disadvantages of three modalities : namely, *a separate course*, *a unit approach*, and an *integration approach*. The arguments may be briefly summarized here :

A. Separate Course approach

A separate course on population education, lasting a term or a year, has the advantage of meeting *the criteria of continuity, sequence and integration*, and thereby providing students with a *concentrated course* that would give them in-depth knowledge. A further advantage is that only a small number of teachers would be involved thereby reducing the effort of the teacher-training component. However, a serious disadvantage of this approach is that the course would be an unwelcome addition to an already over-burdened time table. Secondly, if the course were presented in the more advanced grades, then the pupils who had left school would be excluded from its benefits. On the other hand, if the course were presented in one of the lower grades, certain basic population concepts would have to be omitted as they would be beyond the level of maturity of the pupils. In addition, the teachers of this new course would require more extensive training than is possible to give them a sufficiently deep knowledge of the multi-disciplinary nature of this new field.

B. Unit approach

Adding units of population education to the existing textbooks and classroom instruction was the second mode of inclusion that was considered. "In this approach a series of related concepts may be woven into an instructional scheme which takes roughly from one to four weeks of classroom time. Since children vary in the degree to which they understand concepts, in the maturity level at which a particular concept becomes meaningful, and in their response to teaching methods, the unit approach has the advantage of providing for significant variety in content chronology and methodology. Its disadvantages are the difficulties of altering curricula and of training teachers in many subjects and grades." (1) Despite the considerable effort entailed by this approach, it was considered to be preferable to the separate course approach especially since some of the population concepts were already partially covered by the existing curriculum.

---

(1) *Approaches to Curriculum Organization for Population Education, op. cit.*, p. 58.

C. Integration approach

This approach entails the restructuring of all existing curricula so that the population elements permeate many topics. Thus, although there may never be a population unit, *relationships between population and other topics would constantly be noted and examples for reinforcing other learning would continually be based on population data*. The major problem with this approach is that the task is difficult, time-consuming, and involves modification of so many curricula. It may also result in pupils acquiring a wider knowledge of population "facts", but little comprehension of the relationships among them. On the other hand, this approach would be very valuable if the variety of population facts can occasionally be summarized by a unit specifically designed for this purpose (1).

Considering the advantages and disadvantages inherent in the three approaches, it was decided that a separate course approach should be excluded, and that one of the other two approaches, namely the *unit approach* or the *integration approach*, should be implemented as and when appropriate, using the following criteria :

"The *unit approach* would be adopted when : (i) concepts within subjects could *better be taught* by being organized into a unit ; (ii) *the population concepts within a subject take at least five hours of teaching* ; (iii) the development of a population unit within a subject *does not change the nature of the subject* ; or (iv) a unit is required to summarize the elements which had been integrated into other courses.

On the other hand, the *integration approach* would be used whenever a subject did not lend itself to the addition of a unit, or the population concepts required less than five hours of teaching time, or when the population topics were related to the subjects whose objectives are of the affective domain (such as Fine-arts, Music, etc.)." (2)

Teaching-Learning Methods

In the choice of teaching methods for population education, every effort was made to encourage *pupil participation through investigations* to be carried out by pupils, and *discussions* on the basis of information or views collected from parents, resource persons in the community, or members of the public. Teacher-provided information, although recognized to be useful and relevant, was given second place, and followed upon rather than preceded information ascertained by pupils. In the domain of attitudes and values, the teacher's role was to serve as a catalyst by posing appropriate questions and raising issues that led to the discussion on attitudes and values. Examples are given below of a few lessons that emphasize *pupil participation* (see methods A, B, C, D, E and F). The use of pupil workbooks was particularly noteworthy in that every pupil was required to make personal responses (to overcome the passivity of silent pupils and the dominance of more actively participating pupils, especially in the context of large classes).

Teaching-Learning Materials

The teaching-learning materials which were prepared by the staff on the Korean Educational Development Institute consisted basically of materials intended for teachers and for pupils.

Teacher Materials

The materials initially provided to teachers consisted of *teacher's guides, audio-visual materials* and *evaluation materials*. The *teacher's guides* set out "the specific activities required of teachers and pupils, which lead to the attainment of instructional objectives" (3). The detailed guides contained the "instructional objectives, which further break down into the unit objective, learning guidance plans, major contents of instruction, an hourly instruction guide encompassing specific instructional activities, and evaluation and reference materials" (4). Considering the newness of the field of population education, the guides included "as many reference materials as possible to help the teachers understand the new knowledge comprising population education" (5). The *audio-visual materials* consisted largely of the tables, diagrams, pictures and slides which could be used at appropriate stages in the teaching. Evaluation materials were also supplied to teachers to enable them to assess the extent to which the instructional objectives of the population units had been attained.

Exemplar learning units were also developed for teacher use under a project for which the Unesco Regional Office in Bangkok provided financial and technical assistance. The first, entitled "Population Size in Korea and Betterment of Living Standards" was intended for use in the Social Studies course of the fifth grade of elementary education, and the second, entitled "Population Urbanization : Causes, Results and Solution Measures" was intended for use in the Social Studies course in the first grade of middle school. The teachers' guides prepared for these two units set out the background, the objectives, the content structure, the development plan, and the teaching-learning activities for each of the unit's six class hours. Diagnostic tests to be given prior to each lesson and educative tests at the conclusion of each lesson were also provided. Reference materials were also included in the guides.

At a later stage of the development the Population Education Programme, the Korean Educational Development Institute undertook the preparation of a comprehensive set of resource materials :

"Population Growth and Management of Environment" (139 pages),
"Population Growth and Economic Development" (142 pages),
"Reproduction in Human Population" (161 pages),

---

(1) *Approaches to Curriculum Organization for Population Education, op. cit.*, p. 58.

(2) *Ibid.*, page 59.

(3) Byun, Y.K., et al. *A study on the curriculum and instruction materials for population education in elementary and middle schools.* Seoul, 1975, p. 13.

(4) *Ibid.*, page 13.

(5) *Ibid.*, page 13.

EXAMPLES OF TEACHING-LEARNING METHODS FOR POPULATION EDUCATION

A. METHOD FOCUSING ON INVESTIGATION

1. Teaching and learning activities

(5th grade Social Studies)

Content	Teaching and learning activities	Remarks
The housing situation of classmates	1) Let the pupils *investigate* the housing situation of the classmates. 2) Let the pupils fill in the blanks of the current situation of housing. (See learning material) 3) The teacher gives the average rate of house shortage. 4) Let the pupils compare the outcome of the investigation with the given statistics. (See teaching material)	The teacher explains the criteria of classification of housing situation. The teacher gives different statistics by region.

2. Learning material : questionnaire to collect information on :

- Total classmates ....

- The number of classmates who have own house ....
  who have rented house ....
  who have rented room ....

3. Teaching material

The average rate of house shortage in urban area : 42%
The average rate of house shortage in rural area : 7.6%

B. METHOD FOCUSING ON EXPLANATION

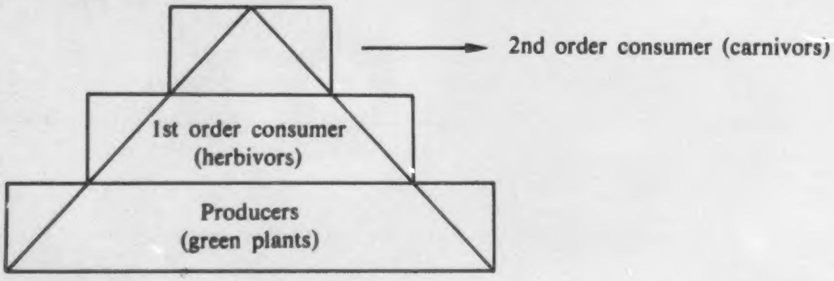
1. Teaching and learning activities

(6th grade Natural Science)

Content	Teaching and learning activities	Remarks
Food pyramid	1) To learn about the quantitative relationship of food between producers and consumers, show the chart of food pyramid and ask the following questions : (See teaching material) – What proportion of food made by producers is eaten by the first order consumers ? – Which do you think is more in quantity, the food made by the producers or the food used up by the consumers ? 2) The teacher *explains* the concept of food pyramid.	

2. Teaching material

Text : Some parts of food made by the producers are used for the producers' living, and the rest are used by the first-order consumers. Likewise, some parts of food got by the first-order consumer are used for the first-order consumers' living, and the remaining parts are used for the second-order consumers. The diagram of the quantitative relationshop of food among producers, the first-order consumers and the second-order consumers is like a pyramid, which is called *food pyramid.*



C. METHOD FOCUSING ON DISCUSSION – FIRST EXAMPLE

1. Teaching and learning activities

(4th grade Social Studies)

Content	Teaching and learning activities	Remarks
Food problem	1) The pupils are asked to investigate the food problem of our country at home with their parents. 2) Let the pupils express what they have learned about the food problem. 3) The teacher explains the food shortage of our country. (See teaching material) 4) Let the class *discuss* the solution of food shortage.	The pupils do the investigation at home (related to method A). During the discussion, the teacher introduces population planning as a means of solving the food shortage.

2. Teaching material

Data on grain imports IN TONS

Year	Rice	Miscellaneous grain	Total
1970	541,000	1,573,881	2,114,881
1971	907,417	1,976,050	2,883,467
1972	583,864	2,626,549	3,210,413
1973	437,000	2,833,571	3,270,571
1974	205,821	2,526,044	2,731,865
1975	481,000	2,666,000	3,147,000
1976	157,291	2,688,864	2,846,155

C. METHOD FOCUSING ON DISCUSSION ON FAMILY SIZE – SECOND EXAMPLE

Discussion on family size

1. Teaching and learning activities (7th grade Social Studies)

Content	Teaching and learning activities	Remarks
Marriage age and expected number of children	Display the statistics (see teaching material) and discuss the following questions ? (1) How does the average marriage age change ? (2) What age do you think would be best for marriage ? (3) Why do people living in rural areas want to have more children than people in the urban areas ? (4) Why do people want to have more sons than daughters ? The teacher helps the pupils to think rationally about the above questions.	

2. Teaching material

(1) Average marriage age

Year	Male	Female
1925	20.5	16.5
1935	21.1	17.1
1955	24.5	19.4
1960	29.4	22.6
1966	26.7	22.8
1970	27.1	23.2

(2) Expected number of children

Whole country		City		Countryside	
father	mother	father	mother	father	mother
2.2	1.4	2.1	1.3	2.3	1.6

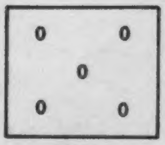
D. METHOD FOCUSING ON THE USE OF GAMES

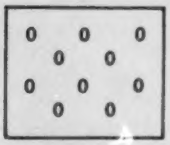
1. Teaching and learning activities

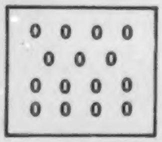
(4th grade Social Studies)

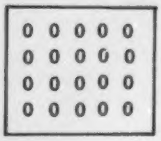
Content	Teaching and learning activities	Remarks
Population	1) Design a *game* that helps the pupils grasp the concept of population density. (See teaching material) – Prepare 4 sheets of square paper with 10 cm x 10 cm width. – Provide 50 pebbles, and let the class put different number of pebbles on the paper; for example 5, 10, 15, 20. – Let the class express the feeling of the arrangement of the pebbles. (For example thick, scarce, dense, scattered, and so on.) 2) The teacher compares the above play to population density : the width of the paper to the width of the country, and the number of pebbles to the population and explains the meaning of population density.	Instead of paper and pebbles, the teacher may use other materials such as underlay and grain.

2. Teaching material









E. AUDIO-VISUAL METHOD
Using the slides

1. Teaching and learning activities

(4th grade Social Studies)

Content	Teaching and learning activities	Remarks
Comparing the life style between *over-populated area and scarcely populated area*	1) After viewing the slides about the various scenes of living environment, lead the class to tell about the difference between urban area and rural areas. 2) The teacher shows the slides one by one and asks the pupils to find out the difference in the living environment. (See teaching material) 3) Let the pupils write down what they thought about the different living environments. 4) Discuss the inconveniences of city life, and lead the class to find out the way to lessen the inconveniences of city life.	Lead the discussion into population planning and decentralization of population.

2. Teaching materials

The slides showing contrasting living environments in urban and rural areas :

- crowded streets
- bad air
- dangerous playground
- indifferent neighbours
- quiet countryside
- clean air
- secure playground
- friendly neighbours
- many buildings
- few houses
- clean street
- dirty street

F. PROBLEM SOLVING METHOD

1. Teaching and learning activities

(7th grade social studies)

Content	Teaching and learning activities	Remarks
The problems arising from population explosion	1) Look into the table of world population. (See teaching material)	The teacher might better make the table into graphs and show it to the pupils.
	2) Inferring from the population change, what problems do you think might arise in the future ?	
	3) Let the pupils write down the possible results of population explosion on the notebook.	
	4) Let the class express their opinions and discuss the *problems.*	
	5) The teacher complements the discussion by telling current about problems and possible problems due to the population explosion.	
	6) What are the possible *measures to prevent above problems* from occurring in the future ? (See teaching material)	Among the measures are family planning, increasing crop production, etc.

2. Teaching material

World population growth table from 1650 (0.5 billion) up to 1975 (4 billion)

"Family Life and Maternal Child Health" (201 pages), "Population Increase and Social Development" (213 pages)

in pursuance of the following objectives :

"First, [this material] will contribute substantially to the revision of curriculum envisaged in 1980 by presenting a wide range of knowledge base for population content in a systematic fashion. Second, it will be of much help in reinforcing the population content which is dealt with insufficiently. Third, it will provide baseline data for the publication of textbooks based on the curriculum revised in the early 1970's. Fourth, it helps teachers develop for male students the contents which are presently dealt with in home economics learnt by female students. Fifth, it will assist in developing the scope of population content relevant to vocational as well as instructional high schools. Sixth, it will facilitate the organization of relevant contents around the instructional objectives in developing teaching-learning materials. Seventh, it will provide a great impetus to a continuing effort towards transmitting the knowledge concerning population, although the amount of knowledge covered here represents only a small portion of the burgeoning knowledge in this field." (1)

Pupil Materials

Population education teaching-learning materials also included pupil workbooks and audio-visual materials. The pupil workbooks set forth activities intended to further promote active pupil participation in population education learnings which could be undertaken with a minimum of teacher-guidance.

To date elementary school workbooks have been developed for grades 1, 2 and 3 ; middle school workbooks have been developed for grades 7, 8 and 9, covering Social Studies, History, Science, Physical Education, Mathematics and Home Economics. High school workbooks have been prepared for the following subjects : Korean History, Mathematics, Home Economics, Geography, Polity and Economy, Physical Education and World History.

To provide students with a visual representation of many of the population concepts introduced into the school curriculum, a package of fifty *slides* covering various aspects of the different population issues were developed and distributed to every high school. Two films, one of them on "Population and Environment", and the other on "Urbanization and Population" were also produced, and copies supplied to provincial education offices for circulation among high schools.

TERTIARY LEVEL : COURSE CONTENT, TEACHING-LEARNING METHODS, AND INSTRUCTIONAL MATERIALS

Course Content

At *Seoul National University*, population issues were introduced through the addition of new content to the courses in the following fields : Anthropology, Korean History, Social Work, Home Economics, Sociology, Demography, Geography, Ecology, Genetics and Biology. The population content and the hours devoted to their instruction are reproduced in detail in order to illustrate the interdisciplinary character of population education. The content of the courses at the other universities is, accordingly, presented briefly. (Figure IV)

FIGURE IV : *Course Content – Seoul National University*

Field	Hours	Contents
Anthropology (major course)	12	Population issues related to environment, resources, and technological advance
		Population characteristics and population control Population pressures and war
Korean history (major course)	10	The Yi Dynasty : family and status systems and population migration
Korean history (general study course)	10	Historial review of population change, composition and migration Population Policies
Social Work (major course)	84	Population problems and its prospects ; social problems caused by population growth
		Measures against social problems caused by population growth ; variables affecting population growth
		Variables relating to the practice of population control
		The roles of social workers in population and family programmes

---

(1) Kim, Sooil et al., *Design on Resource Materials Development for Population Education, Seoul, 1976, page 44.*

Field	Hours	Contents
Home economics (major course)	12	The roles of home and family Growth and development
Home economics (major course)	16	Family : types and pattern ; new values of family
	4	Dwelling density sanitation
	18	Family structure and child development ; family size and education
Sociology (general study course)	12	Population growth and composition : determinants Population and society Population, food resources and the environment Population control and policy
Demography (major course	72	Content areas, study methods, and importance of demography Population trends Population theories - traditional and Malthusian Population growth : determinants and index Population composition ; migration Mortality and natality Marriage and fertility Labour force Population policies Demographic situation of Korea
Geography (major course)	60	Orientation to population geography Population data : types and processing Population distribution in the world ; population patterns, growth, migration Measurement of population density and distribution Urban population
Ecology (major course)	12	The group of individuals ; principles and concept Human ecology Environmental pollution
Genetics (general study course)	12	Group genetics
Biology (general study course)	18	Man and ecosystem Environmental pollution

The population education course which *Korea University* developed for inclusion in the General Studies Programme emphasized the relationship between population and a large number of aspects of social development, some of which are briefly mentionned here : social stratification, education, the economy, hygiene, the environment, individual psychology.

Yonsei University, in addition to four open lectures on "Population and the Future", "Male Preference", "Obstacles to Family Planning", and "Population Control Policy in Korea", introduced population education into the pre-service teacher education course (see chapter 4).

The content of the three elective courses entitled "Population and the Future" at *Ewha Woman's University* covered population education objectives and content, population concept and theory, the sub-divisions of which included the following major areas : *theories of population change* (Malthusian, Classical theory, Modern theory), *demography* (population size, composition, distribution, natality, mortality, migration, growth), the *environment* (human ecosystem and pollution) ; *health and sanitation* ; *home economics and nutrition* ; population and *socio-economic development* (social strains, urbanization ; the *agricultural* society) ; the *family* (concepts and functions) ; *education* ; *women*'s position, roles and the future of society ; *sex education, life quality* and *welfare society* (mankind and the future, technological development, democratic citizens and population movements).

Teaching-Learning Methods

The teaching-learning methods used in the college programmes were by and large the lecture method, supplemented by visual aids team teaching and selected readings. Reference should be made to the three books produced by the Universities as already stated in Chapter 2.

The Role of the Central Office in Relation to Tertiary Level Programmes

The Central Office for Population Education played an important role in relation to tertiary level programmes. It convened regular meetings of the four universities, thereby enabling them to report on their respective activities and exchange information and ideas. In 1974, the Central Office co-sponsored with Yonsei University a *conference* on "*Population Education at Higher Education Institutions*". A *seminar* held in 1975 under the auspices of the Central Office brought together the four participating universities to discuss the problems encountered in population education programme development and to set in train new lines of thinking that led to programme improvement.

A workshop was held in 1976 with a view to diffusing among provincial universities and colleges the programmes developed by the four universities. Thirty professors from provincial national universities and colleges were acquainted with the work of the four universities. Participants expressed considerable enthusiasm for the inclusion of population education in their own curricula, althouth they noted that the rigidity of existing curricula provided little opportunity for the inclusion of new content. When the Higher Education Bureau of the Ministry of Education was apprised of this situation, it decided to take steps to encourage more flexibility in curricula, and accordingly issued an order making it mandatory for universities and colleges to offer lectures on population education to all students to the extent that the individual situation of each university permitted.

OUT-OF-SCHOOL PROGRAMME : COURSE CONTENT, TEACHING-LEARNING METHODS, AND INSTRUCTIONAL MATERIALS

In order to establish the guidelines for population education content selection and instructional strategies for the out-of-school sector, the Population Education Programme first carefully considered some of the characteristics of adult learners as important *determinants* of out-of-school programme development. They are for example : the *heterogeneity* of adult learners (in terms of age, abilities, needs and motivations, interests, socio-economic situation, status, etc.) their stage in the *life cycle* (generally parents, employed, etc.) and their greater *self-reliance and independence* in relation to school children.

Two kinds of educational activities for adults were envisaged : (i) organized and intentional instructions provided by using government facilities, in semi-official groups and through various campaigns ; and (ii) informal instruction through the media and inter-personal contact.

The content selected as being appropriate for the out-of-school programme was problem-oriented and put a strong emphasis on the application of population concepts at the micro (family) level.

Basic concepts of population growth :

World population growth from 1 A.D. to 1975 A.D.
Population statistics
Population dynamics

Problems of our population :

Individual problems
Population growth and social phenomena
Population growth, economic development and food resources
Population growth and limit of resources
Population growth and environmental problems
Population growth and the human environment
Population growth and educational problems

Family motivation, function of family, family size and family relationship :

Family motivation
Number of children and function of family
Family size and family relationship.

Value orientation in relation to the traditional family norms in Korea

Purity, marriage, family planning, and contraception

Inter-relationship between man and nature.

Teaching-Learning Materials

Adult education materials included booklets written in simple language, cartoons, illustrative charts, picture slides with accompanying video-tapes, and 60-minute plays on audio-tape. It was hoped that exposure even to a single 60-minute population education programme would have a perceptible effect on knowledge and attitudes. Follow-up studies using experimental and control groups showed that by and large this expectation was justified.

The first set of instructional materials prepared for the out-of-school programme were tried out in a Mother's Club and an army group. On the basis of the feedback, these materials were revised, and a greater variety of content was introduced in order to meet the needs of differing audiences. A large scale try-out of these materials was undertaken, using specially trained instructors, and a final revision of the materials then took place on the basis of the feedback from them.

The instructional materials consisted of ten printed booklets, two sets of slides, seven audio-taped dramas, six printed cartoon stories, three audio-taped documentary dramas. There were also two *evaluation charts*. The booklets have the following titles:

Population and the future of man
Population and social development
Children and family life
New attitudes towards children
New ways of living
Sex and life
Population and the ecological environment
The nature of population problems
Planning for tomorrow
Guide for contraceptive users.

Stories in the form of cartoons were produced with the following titles:

Father-in-law comes to Seoul
The bright tomorrow
Daughter-in-law is daughter, too
Match making day
Is Seoul really good?

These stories emphasize the importance of the small-family, the dangers of environmental pollution, and the harmful effects of over-urbanization.

A dialogue entitled "New thoughts and behaviour" was prepared in book form to emphasize the problems at the family and the national levels arising from large family sizes and rapid population growth. Picture slides with accompanying audio-tapes dealing with "population explosion and the future of man", and "population increase and Korean communities" were also produced.

CHAPTER 4

TEACHER TRAINING

IN-SERVICE TRAINING

The teacher training scheme established in the Master Plan for Population Education in Korea identified four different target groups for in-service training: key educational personnel who would subsequently serve as in-service trainers, school administrators (i.e. principals, vice-principals and supervisors), elementary school teachers and secondary school teachers. The training programme and its institutional base for each of these target groups were further elaborated as follows :

Programme 1 : Training of In-Service Trainers

Faculty members of Junior Teachers Colleges and Provincial In-Service Training Centres were to constitute the nucleus of the training teams that would undertake the training of elementary teachers under Programme 3 (below), with the assistance, as required, of selected elementary school principals. Secondary school principals were to assist in the training of secondary teachers under Programme 4 (below). Accordingly, the Master Plan specified that 64 faculty members of Junior Teachers Colleges, 11 faculty members of Provincial In-Service Training Centres and 75 selected elementary and secondary school principals were to be trained in groups of 30 at five universities in courses of 10 weeks' duration each during the summer vacation of 1975. The five universities selected to provide this training were to co-ordinate their activities through a three-day inter-university seminar organized under the auspices of the Ministry of Education.

Programme 2 : Training of School Administrators

School Administrators, consisting of 2,000 principals, vice-principals and supervisors were to be trained in groups of 50 at eight universities in courses of 5 days' duration each during the winter vacation of 1975.

Programme 3 : Training of Elementary School Teachers

35,000 elementary teachers were to be trained in groups of 50 at five-day courses each organized by Junior Teachers Colleges and Provincial In-service Training Centres during the summer and winter vacations of 1976, and the summer vacation of 1977.

The faculty trained under Programme 1 formed the nucleus of the 33 two-man training teams that were to carry out this programme, assisted as required by the elementary school principals who also had been trained under Programme 1. These training teams were to co-ordinate their activities at a ten-day workshop organized under the auspices of the Ministry of Education.

Programme 4 : Training of Secondary School Teachers

Approximately 15,000 secondary teachers were to be trained in groups of 50 at five-day courses each held at fifteen universities and eleven Provincial In-service Training Centres during the summer and winter vacations of 1976 and the summer vacation of 1977. The faculty of the Provincial In-service Centres, assisted by the secondary school principals trained under programme 1, were designated to lead these courses. The training institutions were to co-ordinate their activities at a ten-day workshop organized under the auspices of the Ministry of Education.

During its implementation, this training scheme was revised to increase its feasibility and efficiency. One of the important modifications was that the responsibility for training the in-service trainers (or the key trainers), was transferred to the Central Office, which was able to pool resources from various universities and thereby to assemble a group of trainers with the optimum combination of skills and subject specializations. Another important feature of the modified plan was that training was to begin with some 6,000 high school teachers, who were teaching population-related subjects, namely Social Studies (politics, economy, society and culture), Geography, Biology, Home Economics and Physical Education, and progress to the larger group of 11,500 middle school teachers. The training of primary teachers was postponed until the training of these two groups neared its conclusion.

Training of Key Personnel

The training of a nucleus of key personnel constituted the first major activity of the in-service teacher training programme. A series of meetings were held to establish the goals and basic policy guidelines of the training, the criteria for the selection of the personnel to be trained, the training content, the work schedule for the seminar and to identify and brief the writers of the necessary training materials. Participants in these meetings included staff members of the Central Office for the Population Education Programme, the officials of the Ministry of Education (Textbook Compilation Bureaus and Teacher Education Section), specialists in fields related to population education and researchers from the Korean Educational Development Institute engaged in curriculum development for population education.

A four-day seminar was held for the manuscript writers, professionals representing subject areas related to population education, teacher training specialists and textbook editors of the Ministry of Education to further develop the training content and to review and refine the training materials which had been drafted by the writers.

Upon the completion of these preparatory activities, a training course of five weeks' duration was held for 108 educators, consisting of principals, supervisors, researchers and university professors, somewhat less than the planned target of 140. The training programme, covering *153 hours, consisted of three parts* and was supplemented by discussion (or workshop) sessions : the first part took the form of an orientation to population education (definition, content areas and methods of approach) ; the second part dealt with the implications of population change for every sector of life ; and the third part concentrated on the curriculum of population education and instructional guides. The focus of the training was by and large on the cognitive domain. However a post-training evaluation showed that attitudinal and value changes had also been included. An outline of the training programme for in-service trainers is presented in Figure V below.

Fig. V - *PROGRAMME CONTENT FOR IN-SERVICE TRAINERS*

A. Course Content (lectures)	Hours					
	1st week	2nd week	3rd week	4th week	5th week	Total
1. Population Education	5					5
2. The Status of Population Education and its Prospect	2					2
3. Basic Demography	2	2				4
4. The World Population and its Prospect	2	2				4
5. Improvement of Family Life through Population Education	2	2				4
6. Population and the Society	2	3				5
7. Population and the Economy	2	3				5
8. Population and the Environment	2	3				5
9. Population and Health		2	3			5
10. Family Planning		2	3			5
11. Population Policy			3			3
12. Korean Traditional Values contributing to Population Growth			3	2		5
13. Operation of Population Education curriculum				3	2	5
14. The Current Status of Population						
Education in the Elementary Education				3		3
15. The Current Status of Population Education in the						
Secondary Education Social Studies			3			3
16. The Current Status of Population Education in The Secondary			2			2
Education Science				2		2
17. The Current Status of Population Education in the Secondary				2	2	4
Education Home Economics				2		2
18. Population Education in the Colleges						
19. Population Education in Adult Education						
B. Practical Activities						
Special Lectures	4	4	4	6	4	22
Field Surveys	3	3	3	3	12	24
Films and Slides	2	1	3	1	1	8
Discussion and workshop	1	3			2	6
Evaluation					3	3
Others	3	2	2	2	5	14
Total	32	32	29	26	31	150

The effectiveness of this training programme in stimulating and motivating the commitment of these future trainers to the promotion of population education is well-illustrated by the suggestions that they made during the training ; they proposed that they be provided with an opportunity to participate in the development of the provincial and local training programmes. They also made a number of recommendations with a view to strengthen the planned implementation of population education, including : the creation of supervisory positions exclusively responsible for population education in the Ministry and at the provincial levels ; the organization of seminars for the Deans and faculty of junior teacher's colleges and colleges of education in order to facilite the incorporation of population education into the pre-service teacher training programme ; and the institution of training follow-up activities.

The importance of enlisting the support of more *college professors* as key trainers led to the organization of a five-day workshop specially designed for fifty college professors. The purpose of the workshop was to improve the knowledge-base of professors regarding population-related issues so that they could become competent trainers of secondary school teachers for implementing the programmes of population education at the secondary school level.

Training of School Administrators

The Central Office for Population Education organized a five-day programme for the training of 2,000 principals, assistant principals and supervisors of elementary and secondary schools. Its purpose was to promote their awareness of population problems and the importance of population education with a view to enlisting their active support for the implementation of population education within the schools. The training was conducted at the provincial level by eleven institutes (most of them teacher training colleges) specially selected for the purpose. This training was expected to serve as a bridge between the training of in-service trainers and the training of teachers by creating a climate supportive of population education within the schools. An outline of the content of the training programme for administrators, which also illustrates the topical coverage of all training programmes is given in Figure VI below.

Following the modification of the training scheme which emphasized the training of, first, secondary school teachers and, then, middle school teachers, additional two-day training was provided for 2,500 high school principals and 1,500 middle school principals to acquaint them with the population education programme and enable them to carry on a meaningful dialogue about the programme with parents, teachers and students. The training was given by specially trained personnel drawn from provincial boards of education, national colleges of education and graduate schools of education.

In-Service Training of Teachers

The in-service training of teachers was preceeded by two workshops, one for primary school teachers, and the other for secondary school teachers, held in March 1976, in order to develop materials for this training programme. The participants consisted of teachers, the researchers who had worked on the development of the population education curriculum and instructional materials for the schools and additional resource persons. Training materials were designed and developed to meet the needs of teachers at the primary school level, the middle school level and the high school level. The materials prepared at the workshops were then reviewed and further refined by a team of researchers and professional staff before publication.

According to the modified training scheme, 6,800 *high school teachers* representing all teachers of subjects related to population education, namely Social Studies, Geography, Biology, Physical Education and Home Economics, were to receive three days of training at a course implemented by a college of education in each province. The two-part training course consisted of a general introduction to population issues followed by specific instruction in the population aspects of each of the five subjects. The entire training programme for high school teachers was implemented during the summer and winter

Fig VI : *TRAINING PROGRAMME FOR ADMINISTRATORS*

Topics	Hours (totalling 30)
1. Population problems	2
2. Population policies	2
3. Introduction to population education	3
4. Population and social economic development	2
5. Population and the health environment	2
6. Operation of population education curriculum	2
7. New Instructional System for Population Education	2
8. Population education : Its objectives, contents and evaluation	3
9. Workshop and discussion	6
10. Field trip to family planning and health centers	6

vacations of 1977. In addition, high school teachers not teaching population-related subjects, were subsequently given a two-day orientation in population education as a component of the general in-service training programmes of the Ministry of Education. Similar three-day training courses were provided for the entire group of 11,500 *middle school teachers* of population-related subjects, and two-day orientations in population education were also incorporated in the general in-service training programmes for the other teachers at the middle school level. Teachers unable to receive this in-service training and elementary school teachers were given a training booklet which was developed for this purpose, through the funding of the Korean Government. As part of the effort to extend population education to the *out-of-school sector*, it is planned that 800 selected teachers from elementary schools in remote areas will be given three days of training to prepare them to be instructors of school leavers and adults in the community.

PRE-SERVICE TEACHER TRAINING

The content of the population education course to be included in pre-service teacher training programmes was developed by *Korea University*, tested and modified on the basis of the trial results. The contents of this course - which comprised the elements related to population education that were felt to be essential for future teachers - included : *the basic conceptualization of population education* (i.e. the basic concept of population education, population distribution and composition, population changes, population and social problems, planning for the future, population problems and education, the definition of population and historical review of population education ; the population education *curriculum at each level* ; the *instructional materials* for population education ; the *basic directions* of population education study ; and the *evaluation* of population education.

This course has not yet been taught due to administrative problems in including a new course in the teacher training programme. However, a book entitled "Population Problems", which was developed to serve as reading material for this course, has been already published.

Yonsei University, cognisant of the problems of institutionalization of a new course, decided to introduce population education as the major component of the course on "School and Community" in its pre-service teacher training programme. The topics included in this course were as follows :

1. The social functions of education.
2. Population problems in Korea and the role of education.
3. The role of population education in the development of regional community.
4. Education and values ; population education and students' values.
5. Changes in the family system and the roles of education.
6. Family planning and the roles of education.
7. Population and family planning programmes as means for planned change of society.
8. The methods of community survey for planning population education.
9. The development of learning units of population education for community schools.
10. The role of the school in the development of regional community.

Action has also been taken for the inclusion of population education in the pre-service teacher training programmes at four provincial universities.

As an outgrowth of the recommendations of the in-service trainers initially trained in population education, two seminars have been held for the Deans of colleges of education and junior teacher's colleges with a view to enlisting their support for the inclusion of population education in their curricula. These seminars generated considerable enthusiasm as shown by the following quotation from the seminar results :

"The university is no longer a secluded ivory tower, shut off from day-to-day cares of society. It has come down to address itself to the social problems spawned in the dust of daily life. The inclusion of population education in the curriculum... is a clear mandate dictated by the reality of today's society. Particularly, the teacher training institution must stand in the vanguard of developing population education through the in-service training programs of teachers." (1)

In addition, fifteen colleges of education and eleven junior teacher's colleges have been given financial assistance for course development.

OVERSEAS STUDY TOURS AND TRAINING

A number of educators from the Republic of Korea have undertaken *study tours* of two to three weeks' duration in Asian countries to observe the operation of population education programmes. These groups included Deans of colleges, college professors, Provincial Research Centre directors, Ministry of Education administrators, curriculum coordinators, and supervisors and researchers from the Korean Educational Development Institute.

The Group Training Courses organized by the Unesco Regional Office for Education at Bangkok have been attended by educators associated with the Population Education Programme. In addition, a researcher from the Korean Educational Development Institute and a professor from a University College of Education were enrolled at two universities in the U.S.A. for the Ph.D. degree, specializing in population education.

---

(1) *Population Education Programme in Korea, 1974 - 1978*. Central Office for Population Education Programme. Ministry of Education, 1978, pp. 45 - 46.

CHAPTER 5

RESEARCH AND EVALUATION

SOCIO-CULTURAL STUDIES FOR PLANNING AND IMPLEMENTING POPULATION EDUCATION

During the implementation of the Population Education Programme, six studies were undertaken to obtain socio-cultural data useful for the development of curricula and teacher training programmes. The findings of these studies helped to shape revisions of curriculum materials and the preparation of teacher training programmes. The *Study on the Knowledge and Attitudes of Teachers and Students Towards Population Matters*, was undertaken by the Central Education Research Institute, in the early 1970's to provide baseline data regarding the knowledge base and attitudes of elementary and secondary teachers and students towards population issues. It showed that a majority of the teacher and student respondents considered population problems to be serious and also approved of the national family planning programme goals and activities. Among the teachers, urban school teachers showed a greater awareness of population problems than their rural counterparts ; similarly, the awareness of younger teachers exceeded the awareness of older teachers. Son- and nuclear-family preference were both prevalent. Teachers in large cities preferred a shorter spacing interval between children than rural school teachers, and the spacing interval preferred by male teachers was longer than the interval desired by female teachers.

Elementary school teachers' knowledge and attitudes were also studied by the Education Research Institute of Chung-Ang University (1). The findings of this study were generally concurrent with the findings of the previous study. An interesting feature of this study is the investigation of the differences between the attitudes of Budhist, Protestant, Roman Catholic and Confucian elementary school teachers. The research showed a higher degree of preference for sons among Confucian followers than among the followers of other faiths ; this preference seems to be influenced more by the Confucian concepts related to the continuity of the family than by the concern for support in old age. It also found that support for family planning was least among Confucian teachers. At the same time, the Education Research Institute of the College of Education of Seoul National University further examined the *knowledge of and attitudes* towards population problems *among secondary teachers* (2). This study, while supporting the findings of the studies referred to above regarding the population knowledge of teachers, found that both Roman Catholics and Confucians tended to have less favourable attitudes than other religious groups towards population planning.

Between August 1974 and February 1975, the Korean Institute for Research in the Behavioural Sciences carried out a study on the *Development of Population Knowledge and Attitudes of Primary and Secondary School Students* (3) to determine how students' knowledge and attitudes regarding population issues *changed from one developmental stage to the next.* The findings indicated a relatively high level of knowledge about basic population concepts and problems at the national level, but little application of these concepts at the family level where there was little knowledge of basic demography. Rural residence was generally preferred by students up to the middle school while students at higher levels expressed a preference for urban areas. Preference for a nuclear family and ideas of an optimum family size (which averaged around three children) were found to crystalize in the higher grades of primary school. Overall, the desired sex composition was 2 : 1 in favour of male offspring ; however, boys, especially in the higher grades, placed a higher values on sons than did girls, who tended to favour a more balanced family composition. Son-preference centred around the values, on the one hand, of "succession to family lineage", "representing a family" and sons observing "ancestor worship ceremonies", and on the other, the attitude that boys were "more competent" and "the leaders of society". Serious thought about age of marriage was found to begin during the high school years, and the preferred marriage age was 25 - 26 years.

The relationship between *environmental variables and students' knowledge and attitudes about population matters* was examined in a study undertaken by the Central Office for Population Education (4).

---

(1) Research Institute for Korean Education, Chung-Ang University. *A Survey on the Elementary School Teachers' Knowledge of and Attitude Towards Population Problems*, Seoul, 1975.

(2) Education Research Institute, College of Education, Seoul National University. *A Survey on the Secondary School Teachers' Knowledge of and Attitudes Towards Population Problems*. Seoul, 1975.

(3) Korean Institute for Research in the Behavioural Sciences. *The Development of Population Knowledge and Attitudes of Primary and Secondary School Students in Korea*. Seoul, 1975.

(4) Central Office for Population Education Program. *A Survey on the Effects of the Educational Environment Towards Population Education*, Seoul, 1975.

Environmental variables included school characteristics (such as size and number of pupils per class), family characteristics (such as number and sex of siblings, religion, educational level of parents), and community characteristics. An important finding was the significant effect of the attitudes of parents and teachers towards population matters on the awareness and attitudes of children, with a higher cognition of population problems and more favourable attitudes indicated by children whose parents and / or teachers had favourable attitudes towards population planning.

About seven years after the initial study of students' knowledge and attitudes which had been undertaken by the Central Education Research Institute in the early 1970's (see above), the Central Office for Population Education undertook a similar study to *assess the effects of population education* on the attitudinal change of students. The study established that population education was an important determinant of students' attitudes, since the knowledge was higher and attitudes more favourable among students in schools with experimental population education programmes than among students who had not been exposed to population education at school. A preference towards the nuclear family was found to be associated with urban living and with a higher standard of parents' education. Family size and son-preferences were also found to be related to parental background ; however, overall there was found to be a general trend towards less traditional attitudes towards both these issues than had been found in the earlier study, and a generally higher standard of population knowledge.

RESEARCH RELATED TO CURRICULUM DEVELOPMENT

A two-phase study entitled, *Organization Approach to Population Education Curriculum*, was undertaken between August 1974 and March 1975, to develop a conceptual framework of population education sequenced according to grade level and subject matter and to determine the mode of inclusion of the population content into the syllabi of various subjects. In the first phase, a general analysis of the structure and pattern of the entire curriculum was made. In the second, the characteristics of the population education curriculum identified and a model of their organization was developed.

EVALUATION

Evaluation of Curriculum and Instructional Materials

The curriculum and instructional materials went through a continous process of formative evaluation : prepared materials were regularly reviewed by specialists both in education and in subject matter fields, and revised in the light of their comments and contributions. The further evaluation and reformulation of the population education materials is illustrated by the following description of the field testing of the high school materials. After the population education materials for high school students had been revised according to the inputs of the expert review teams, they were field-tested in 19 high schools. Two training seminars were conducted for 83 teachers from these schools, which were later constituted into two groups : a group of five "experimental" high schools and a group of "co-operating" high schools. The try-out instruction in the experimental schools was carefully observed and evaluated by the researchers who had prepared the materials and the textbook writers from the Ministry of Education. The teaching in the experimental school was further evaluated in a follow-up study. The co-operating schools were neither observed nor evaluated in order to provide a more natural setting for the use of these materials. The teachers from both groups of schools participated in a meeting to provide the researchers who had prepared the materials with feedback concerning specific problems and suggestions of possible ways of improving the materials. This meeting was followed by a workshop at which the researchers, subject matter specialists, textbook writers and all teachers who had participated in the trial of the materials, collaborated to effect improvements in the materials.

This process of formative evaluation and revision is regarded as a crucial and integral feature of programme development. Feedback is invited from teachers using the materials and from other educators as a matter of course, and note is taken of comments that may help in the further improvement of the materials. The need to up-date population data from time to time is very much on the minds of the Programme staff, and hence, the process of continuing revision of materials is viewed as essential. Since not all population related issues are felt to be equally significant in all regions of the country, these regional variations in the salience of population problems need be taken into account through provision for regional adaptations.

Evaluation of Pupil Learning and Attitudes

The tests which have been prepared to evaluate pupil learning and attitudes, have been used to a certain extent. A great deal more, however, remains to be done, and in this regard the contribution made by the *Manual on Evaluation* prepared by the Unesco Regional Office (1) is gratefully recognized. It is hoped to follow up the ideas contained in the manual, and to prepare a variety of instruments to help in assessing pupil learning and attitudes.

Evaluation of Training and Teaching

Not much progress has been made so far in either of these fields. It is recognized that the evaluation of training should extend beyond the teachers' views about the effectiveness of their training, and that "harder" evaluation data is needed. The Manual on Evaluation is suggestive in this regard, too, and it is proposed to develop in course of time a few instruments for evaluation purposes.

---

(1) Unesco Regional Office for Education in Asia and Oceania, *Manual on Evaluation in Population Education*, Population Education Programme Service, Bangkok, Thailand 1979.

Contribution of Mass Media in the Population Education Programme

The Population Education Programme did not have any special connection with the mass media. However, descriptive literature regarding the project was made available to the media in the hope that any references to it would be couched in accurate terms, so that prejudice and fears would not be created in the minds of parents and the public by any misleading descriptions (e.g. any confusing association with sex education or family planning) of a programme that has been conceived on sound educational lines. In this sense, the mass media often high-lighted the problems at the family and national levels arising from large family sizes, rapid population growth and urbanization, and by doing so created a social climate that has been favourable for population education.

CHAPTER 6

THE INNOVATORY CONTRIBUTION OF POPULATION EDUCATION

The analysis of the innovatory contribution of population education to Korean education is based on two main sources of investigation and of information : the views of educators involved with the Central Office throughout the Programme's implementation as part of on-going assessment and review ; and evaluations collected through a questionnaire prepared by the Central Office with the assistance of the Unesco consultant for this study, and distributed to a sample of educational personnel, including researchers, curriculum writers, school administrators and teachers, and tertiary-level faculty and institutional heads, early in 1979. This comprehensive seven-part questionnaire dealt with all aspects of population education (its content, methods, materials, training of teachers, evaluation procedures and research studies) and sought to elicit respondents' perceptions of the innovatory elements and the extent to which these features had, in turn, influenced either instruction in other subject-areas or broader aspects of the relationship between teachers and parents and the school and the community. In keeping with the basic principle of Korean education to "promote a commitment to providing the greatest service for the benefit of mankind" (1), respondents were also asked to assess the effect of population education on the personal outlooks, life styles and activities of teachers and students.

PROGRAMME STRUCTURE AND MANAGEMENT

The Population Education Programme of the Republic of Korea affords an interesting example of the *implementation of a nation-wide programme of curriculum change, through the collaborative efforts of a variety of existing national educational and research institutions*, under the overall direction and supervision of a central coodinating agency - in this case, the Central Office for Population Education, established within the Ministry of Education with the Vice-Minister for Education as the ex-officio director, a part-time Executive Officer and a small supporting staff.

The range of tasks required to introduce population education into the entire educational system were either sub-contracted directly to institutions or else undertaken by teams which combined the expertise of a great number of organizations, - refered to throughout this study - assembled by the Central Office (2). The Korean Population Education Programme has thus demonstrated the success of a relatively new management strategy which *made maximum use of scarce resources* - institutional capabilities and expert manpower - with considerable flexibility. Weaving day-to-day implementation into the responsibilities of many existing national institutions also provided the benefits of *rapidly diffusing* an understanding and acceptance of the new Programme among key elements of the educational system, while, at the same time, *catalyzing* a diversity of points of view and approaches for Programme development.

Of equal importance, for the successful implementation of this and other similarly structured programmes, is the fact that the Central Office paid careful attention to the *mechanics of coordination*. A review of Programme activities provides instructive guidance in measures that promote joint planning and a flow of information between different institutions engaged in the same type of endeavour (e.g. in-service teacher training) and also between institutions involved in different phases of Programme development (e.g. research and the preparation of curriculum materials).

CONTRIBUTIONS TO KOREAN EDUCATION

Content

The content of population education, which emphasizes the quality of life and the relationship between man and his bio-physical environment, is viewed as innovatory in its *broad interdisciplinary knolwedge-base*, in its *attention to the clarification of values* and in its *future-orientation*. To promote students' understanding of the relationship between population processes and standards of living, socio-economic development and conservation of the environment, the content of the concepts, sub-units and courses which were introduced into various levels of the curriculum was drawn selectively, through the collaborative efforts of discipline specialists and educational experts, from many fields of study, including Demography, Economics, Sociology, Health Science, Physical Science and Biology. This *diversified content*, which stressed the *linkages* between subject areas, has been widely commended by Korean educators. They have noted an increased tendency to introduce interdisciplinary considerations pertaining not only to population processes but also to other social phenomena into both the school and the college curricula. For example, at the college level, subjects with a potential for the inclusion of population content have undergone syllabus revision ; population ecology is now given a more prominent place in biology, and environmental education is emerging as an area of new concern.

---

(1) See Chapter 1.

(2) Regional school boards and regional universities were also involved in training activities. The Ministry of Science and Technology also played an important role in shaping programme development.

The adoption of a multi-disciplinary approach in population education has also encouraged *co-operative research* by specialists from a wide range of disciplines. Not only have interdisciplinary research studies related to population problems gained momentum, but also more general interdisciplinary studies on values and social problems, such as studies dealing with women and social status have been undertaken with greater frequency. In general terms, multi-disciplinary research in population education is said to have provided an impetus to multi-disciplinary research in other areas, and encouraged collaboration among scholars belonging to different disciplines.

The content of population education is also felt to have introduced a somewhat unique emphasis on the *examination and clarification of attitudes and values* that guide personal choices and shape individual decisions in the *solution of problems*. The fact that population education sought to ensure a *personal* application of new knowledge and understanding is, perhaps, the feature that has generated the greatest enthusiasm among Korean educators since it extended the educational process beyond the cognitive domain to affective and behavioural levels, in line with the national educational concern with the personality development of students.

A closely related aspect of population education that has been singled out for mention is that it has encouraged a forward looking, *future orientation* among students. Since one of the basic elements of population education is the promotion of decision-making skills, it has stimulated new attention to a variety of abilities, including the ability to recognize alternatives and options, to anticipate consequences, to weigh advantages and disadvantages, and to select solutions on the basis of the criterion of a higher quality of life. "The purpose of drawing explicit attention repeatedly to these processes through a variety of planning exercises is to make them active elements in an individual's behavioural repertoire and to encourage their conscious application in all life situations" (1).

Methods

Population education is also widely appreciated for its emphasis on learner-centred, *participatory teaching-learning methods*, such as investigations, open-ended discussions, debates, panels, games, problem-solving methods and use of audio-visual techniques.

Both the *diversity* and the *appropriateness* of the teaching-learning methods of population education have earned favourable comment, perhaps best summarized by the expression : "a welcome variety of new teaching methodologies relevant to new needs". The potential contribution of these methods and instructional approaches to other subject areas has been generally recognized, and this recognition, in turn, has given impetus to widespread development and use of new methods of instruction. *Team teaching* has been introduced in other subject areas as a result of its introduction in population education, and "the discovery approach" also has been extensively adopted.

Materials

The introduction of population education into Korean education has entailed the development of a diversity of *materials* for both teachers and students, including teacher's guides, audio-visual aids, evaluation instruments, reference books and resource texts, and pupil workbooks. Much appreciation has been expressed for the supply of *teaching guides and other materials* for teachers on a scale quite unusual in the context of Korean education. The teaching guides have been commended as leading to a more systematic approach to instruction, and helping teachers prepare lesson plans more systematically. Apart from the guidance for instruction provided by the teaching guides, the background information contained in them has helped teachers to develop awareness of population problems, and to think logically about immediate problems. These guides and materials produced for population education have also stimulated the development of teaching materials in other subject areas and has been most marked in the *increased use of audio-visual aids*, which teachers have been motivated to develop.

The population education programme is deemed to have encouraged a *critical analysis of conventional evaluation methods*, arising from the need to develop instruments for assessing changes in attitudes and values. Although it is recognized that more work is needed to develop evaluation tools in these areas, those already developed have certainly been deemed useful and have promoted in teachers a better understanding of the ways in which evaluation results are to be utilized. The *reference books and resource texts* which were developed to accompany the introduction of population education at the college level, have been commended for their shift from the traditional textbook formulation to that of an anthology of materials, featuring contributions of a wide network of participating faculty members. The linkage between subject matter areas in these materials is also felt to be a noteworthy feature, as is the fact that the population contents were woven into a coherent structure.

Similarly, the features of the *pupil materials* that have attracted the notice of Korean educators is the systematic organization beginning with a clear statement of objectives, and continuing with a methodical treatment of population concepts and problems, which has provided for an orderly and progressive learning of population issues. Accordingly, the student workbooks in population education are regarded as having a sequential content and structure to be patterned by other subject areas. And overall, there is a general concensus that the curriculum and instructional materials development processes followed in population education have stimulated a more systematic approach to curriculum and materials development in other subject areas.

---

(1) Jayasuriya, J.E. *Curriculum Innovation through Population Education*. Colombo, Sri Lanka, Associated Educational Publishers, 1978, page 72.

CONTRIBUTION TO THE PERSONAL AND PROFESSIONAL DEVELOPMENT OF TEACHERS

Teacher Training

The teacher training programme generally helped teachers to recognize the seriousness of population problems and brought about changes in their attitudes towards these problems. However, the benefits of the training in population education extended to teachers' increased awareness of a diversity of social problems within their immediate surroundings and augmented the sense of responsibility for personal action. In addition, careful examination of traditional values was encouraged during the training, with resulting changes in teachers' outlooks and lifestyles. Finally, teachers' motivation for new learning was enhanced on account of the importance of the issues under consideration, creating a climate supportive of innovative educational programmes.

Social Awareness and Responsibility

The significant contribution of population education training in sensitizing teachers to social issues - including, but not limited to, population issues - and eliciting a broad range of active responses to these issues is generally acknolwedged by Korean educators. They have noted a new dedication on the part of the teachers to serve the community with a higher awareness of population problems, national development problems and tasks to be done ; an increased consciousness of duty to transmit both knowledge of population education and other social considerations ; and a new feeling of responsibity to participate more actively in community development. For example, teachers have reported that, as a result of their exposure to population education, they directed more attention to the quality of life and the dignity of human beings, whose realization depends in part, on the optimum extent to which population problems are solved. They have also stated that their propensity to look for the relationships between social phenomena has been developed due to a new understanding of the potential of one social phenomenon to affect others. They have also given more consideration to the importance of nature preservation and the economical use of resources.

Personal Examination of Values

Teachers' exposure to population education has also promoted among them a reconsideration of personal values and choices, in particular concerning family size norms and son preference, but also concerning family roles and relationships and the quality of family life. This new tendency to weigh and evaluate what had previously been taken for granted has also been applied to other areas, and teachers have reported a determination to practice what has been learned and to develop a more rational lifestyle - one that is consistent with what is dictated by learning.

New Learning

Population Education has also broadened teachers' academic perspectives and interests. School teachers, whose previous interest had been confined to their content areas, have started exploring new fields as a result of population education's emphasis. *Within science*, they have reported efforts to master new areas such as ecology, physiology, embriology, eugenics and an extension of general theory in biology to apply to human life comprehensively. In *the social sciences*, an awareness of the importance of attitudes and behaviours has led to a new interest in attitude-formation and motivation, as influenced by traditions and values, as well as a more general systematic study of man within his socio-cultural environment. Attention to socio-economic and demographic problems similarly has broadened teachers' areas of concern and stimulated them to investigate topics of current relevance, leading to a renewed determination to broaden their concern regarding problems facing the contemporary world. Even the area of *religion* has been perceived in new dimensions, with at least one reference to the examination of population issues in the framework of theological and ethical problems. Population education has also introduced new dimensions to the teaching of *home economics* generating a problem orientation and extending the scope of the field to include not only those within the family but those surrounding it. In *education* itself, population education has led to a recognition of the importance of the *sociology of education*, as well as a broadened scope of guidance and counselling.

CONTRIBUTION TO THE PERSONAL DEVELOPMENT OF STUDENTS

Population Education also is clearly regarded as contributing to the broadening of the outlook of Korean students, making them more conscious of problems affecting the family, the community and the nation. Without exception, the in-coming feedback to the Programme and the replies to the recent questionnaire suggest that the outlook of students has become more developed and more acute as a result of exposure to population education. The following are typical comments : students now understand that population problems are related to the welfare and the quality of human life, and that family life is much dependent on them. They better appreciate that optimum size of family is a factor affecting national development. They have tended to adopt a positive attitude towards a small family norm, as well as an awareness of increasing individual welfare through family planning. Population Education has made students realize the seriousness of population problems in our country and the world, and has helped them to comprehend that the solution of population problems is one pre-requisite for the realization of a welfare society.

Population education has also been highly commended for stimulating a heightened awareness of more general social issues among students, since it places population problems in the broad context of health, environmental, economic and social issues. It has enabled students to understand, for example, that a harmonious relationship between population and nature guarantees the quality of life, and that, to cite another example, there is a relationship between population growth and housing, transportation, resources pollution, food values, and the carrying capacity of nature, as well as other facets of national development.

CONTRIBUTION TO SCHOOL-COMMUNITY RELATIONSHIPS

Through its impact on teachers and students, population education has promoted a new realization of common concern and shared commitment in the community. Population education is regarded as having spread out to home and society through the students exposed to the Programme, and it is felt that the family has been influenced through educated students. The integration of population education at the college level into "school and community" courses, in which students are required to participate in community service, has given college students an active role as change agents in the community with respect to population matters. Consequently, there has been an enhanced awareness on the part of parents and community members of social problems resulting from population growth. Because teachers trained in population education have come to view population problems as constituting an aspect of the community development problms that have to be addressed urgently, they too have played an important role in sensitizing the community to population issues. Some specific activities in which they are engaged are : forming population education associations with other scholars, members of the community and representatives of mass communications organizations ; participating in meetings of mothers' clubs, women's service corps, family planning organizations, parents' classes, and other non-formal educational activities. The net result is that many parents have been led to critically re-think their view of life in relation to marriage and family and have acquired an understanding of population phenomena, have modified their attitudes and values and also have come to adopt new practices related to population matters. It is also considered that many parents have developed a better understanding of the need for population education in school and have come to appreciate the fact that the awareness promoted through population education could be a significant contribution to the solution of community and national problems.

Study of the contribution of population education to educational renewal and innovation in the Philippines

With the collaboration of J. E. Jayasuriya and A. Krystall, consultants

Population Education Section
Unesco Headquarters, Paris 89

TABLE OF CONTENTS

INTRODUCTION 101

PART I : BACKGROUND TO POPULATION EDUCATION IN THE PHILIPPINES : DEMOGRAPHIC, ECONOMIC AND EDUCATIONAL CHARACTERISTICS 103

Demographic Situation and Challenges 103
Composition 103
Geographical Distribution and Migration 104
Urbanization 104
Official Population Policy 104

Economic Challenges 107
Agriculture and Industry 108
Government Responses 108

Some Facts on History and Culture 109

Educational Challenges and Responses 109
Organization and Achievements of the Formal Educational System 110
The Need for Educational Reform 112
Educational Reforms of the 1970's 112

PART II : THE POPULATION EDUCATION PROGRAMME OF THE PHILIPPINES : ORGANIZATION, STRUCTURE AND IMPLEMENTATION 114

Introduction 114

Early Population Education Activities in the Philippines 114

Regional Population Education Activities 115

Programme Structure 115

Scope of Work 116
Level of Introduction 116
Mode of Inclusion 117
Programme Objectives and Activities 119

PART III : THE POPULATION EDUCATION PROGRAMME OF THE PHILIPPINES : FROM OBJECTIVES TO ACTIVITIES 120

Introduction 120

Objectives of Population Education : A Fusion of Demographic and Educational Goals 120

Content 121

Instructional Designs and Teaching-Learning Methods 124

The Integration of Population Content 126

Curriculum Development Activities 127
Curriculum Materials : Teacher's Guides and Reference Materials 127
Curriculum Materials : Instructional Aids 128

PART IV : TEACHER TRAINING FOR POPULATION EDUCATION 130

In-Service Teacher-Training 130

Strategies for In-Service Teacher-Training 131

Pre-Service Teacher-Training 132

The Expansion of Training 133

PART V : RESEARCH AND DISSEMINATION OF INFORMATION 135

Research 135

Formative Evaluation 136

Dissemination 138

PART VI : THE CONTRIBUTION OF POPULATION EDUCATION TO EDUCATIONAL INNOVATION AND RENOVATION 139

Population Education Innovations and Their Contribution to the Curriculum 139

Population Education Programme Activities and Their Contribution to the Educational System 140
Permeation of an Interdisciplinary Orientation 141
Development of an Integrated Curriculum Design 141
Curriculum Materials 141
New Approaches to Teacher Training 141
Promotion of Research 142
Utilization of Formative Evaluation 142
Introduction of the School Into the Wider Community 142

ANNEX I : Scope and Sequence Chart 145

ANNEX II : Population Education Publications 151

TABLES AND FIGURES

Pages

Table I Percentage Distribution of the Populationnnnn dy jage Group, 1903, 1948, 1960 and 1970 103

Figure I Population Growth in the Philippines, 1903-1975 104

Figure II Administrative Regions and their Component Provinces, 1970 105

Table 2 Total, Rural and Urban Population, Their Respective Annual Growth Rates, Level and Tempo of Urbanization, 1948, 1960 and 1970 106

Table 3 Distribution of the Population 6 Years Old and Over, By Highest Level Completed in 1948, 1960 and 1970 110

Figure III Structure of the Formal System of Education of the Philippines, 1973 111

Figure IV PEP Organizational Structure 116

Table 4 Population Education Programme Scope-of-Work and Activities 118

Figure V Population Education Curriculum Content Outline 122

Figure VI Population Education Program (PEP) Training Scheme 132

Figure VII Modular Approach 133

INTRODUCTION

Despite their many differences, most of the countries in Asia, Africa and Latin America share the historical experience of a colonial disruption of their traditional ways of life and an effort to effect self-determined improvement in their presently disadvantaged socio-economic position. Their goal of development is an improved quality of communal and individual life, involving the transformation of the past into a newly-created economic and social order. These aspirations and concerns are common to the majority of the nations of the developing world. Their goals and directions are new, and to achieve them, they are refurbishing their traditional ways of life and modifying "imported" institutions so that they serve new ends, while simultaneously introducing innovative measures and programmes.

This process has affected the educational systems of many countries. In the Philippines, one of the steps taken towards educational renovation has been the introduction of population education into the school curriculum. The present study illustrates the way that the system of formal education in the Philippines is being altered to achieve new goals and to perform new functions, and the way that this new element - *population education* - has contributed to a more general process of educational renewal. At the same time, it illustrates the manner in which the Philippines - in common with many other countries - is giving new attention to the relationships between its development goals and its population situation and details the translation of this attention into an educational programme designed to promote understanding of the population dimensions of economic and social conditions and to encourage active participation of future citizens in the process of social change.

In 1972, the Population Education Programme was launched as a nation-wide endeavour under the authority of the Ministry of Education and Culture. The long-range objectives of this Programme stress its contribution to the Government's overall development objective of an improved quality of life for the Filipino people :

"Growth of the economy and reduction of the rate of population growth are both stated objectives of the Philippine government's program. So, too, is modification of the educational system to make it more relevant to the nation's needs. In more general terms, it is the responsibility of the government of the Philippines to take all action necessary to enhance the quality of life of all Filipinos. The Population Education Program is one project aimed at all of these general goals.

Through the integration of population education into the elementary, secondary and teacher-training curricula of the formal school system, it is expected that with the development of knowledge and understanding of the causes and effects of population growth on the personal and social levels, the attitudes and behavior of the new generation of Filipinos toward family size and rural-urban migration will be more informed and more responsible."

Between 1972 and 1978, the Population Education Programme, with UNFPA funding and Unesco advisory assistance, mounted the large-scale enterprise required to establish this new domain in the educational system at the primary, secondary and tertiary levels. This description of the Programme's activities and analysis of their contribution to educational renovation in the Philippines, specifically on curricular revision, the development of learning materials, instructional approaches and methodologies, teacher-training, and research and evaluation, is intended to promote the general understanding of population education and the many-faceted nature of its potential contribution to the wider educational system and to provide countries interested in the introduction of population education with guidelines, suggestive of approaches and strategies that can be employed in any large-scale curricular revision.

The information for this study was drawn from various sources : on the one hand, from a thorough documentary analysis, and on the other, from a field survey which was undertaken in 1979 by the Philippine Population Education Programme staff and a Unesco consultant under the auspices of the Population Education Section of Unesco Headquarters, Paris.

This study is divided into six parts. *Part I* presents the demographic, socio-economic and educational background to the establishment of the Population Education Programme and indicates its place in the overall reform movement of the early 1970's ; *Parts II* to *V* describe respectively the Programme's beginnings, its organization and scope of activities (*Part II*) ; the objectives, content, teaching-learning methods of population education and the curriculum materials prepared by the Programme's staff (*Part III*) ; the training of teachers (*Part IV*) ; and the flow of information *to* the Programme through its research and *from* the Programme through its dissemination activities (*Part V*). The final section of the study (*Part VI*) analyzes the impact of population education on the wider educational system and its contribution to educational reform and renovation.

PART I

BACKGROUND TO POPULATION EDUCATION IN THE PHILIPPINES : DEMOGRAPHIC, ECONOMIC AND EDUCATIONAL CHARACTERISTICS

DEMOGRAPHIC SITUATION AND CHALLENGES

The Republic of the Philippines consists of a cluster of 7,107 islands that lie 600 miles off the southeast coast of Asia and extend over a distance that measures approximately 1,000 miles from North to South and 650 miles from East to West. The total land area of about 116,000 square miles (300,000 square kilometres) and the total population of 42,070,660 are both concentrated in the two largest Philippine islands : *Luzon*, located near the northern tip of the group, with the capital, Manila, the country's political-industrial centre ; and *Mindanao*, in the South. Lying between these two is a group of smaller islands, known as the *Visayan* Islands and located to the west, the island of *Palawan*. Most of the remaining islands are small ; 466 have an area of little more than a square mile each, and only 800 are inhabited.

As shown in Figure I, rapid population growth is a relatively new phenomenon in the Philippines. As is the case in many countries of the developing world, it is attributable to a declining death rate interacting with a consistently high birth rate, rather than to an increase in fertility (1). The high rate of birth also reflects the value placed on children throughout the society, and the anticipation that from their late childhood years they will provide the family with economic and financial assistance.

Composition

The Philippines has a relatively young population. The median age which was 20.2 years at the beginning of the century, dropped to 17.1 years in 1960, and 16.9 years in 1970. Presently almost one third of the population is less than ten years old ; each advancing ten-year age group accounts for a declining share of the total population.

Table 1 : *PERCENTAGE DISTRIBUTION OF THE POPULATION BY AGE GROUP, 1903, 1948, 1960 AND 1970 (2)*

Age Group	Percentage of Total Population in Census Years			
	1903	1948	1960	1970
0 - 9	28.8	30.9	33.0	32.0
10 - 19	20.7	24.0	23.1	24.8
20 - 29	17.1	17.0	16.3	15.3
30 - 39	13.4	11.7	11.0	10.9
40 - 49	8.4	7.5	7.9	7.5
50 - 59	5.7	4.1	4.4	5.0
60 - 69	3.9	2.7	2.4	2.7
70 and over	2.0	2.1	1.9	1.8

The Philippines ranks sixteenth in the world and seventh in Asia in the size of its population which has been enumerated four times since the country achieved independence : in 1948, 1960, 1970 and 1975. These censuses recorded a total population of 19.2 million (1948), 27.1 million (1960), 36.7 million (1970) and 42.1 million (1975). Average annual growth rates for the periods between these censuses have been calculated as : 3.06 per cent for the period 1948 - 1960, 3.01 for the period 1960 - 1970, and 2.79 per cent for the period between 1970 and 1975. At the current rate of growth, the population would increase by about 1.1. million persons per year and would double every 25 years.

This young age stucture will tend to increase the Philippines' population in an exponential progression ; thus, at present levels of fertility "the increase in the population of the Philippines during the next generation would far exceed that experienced up to this time" (3).

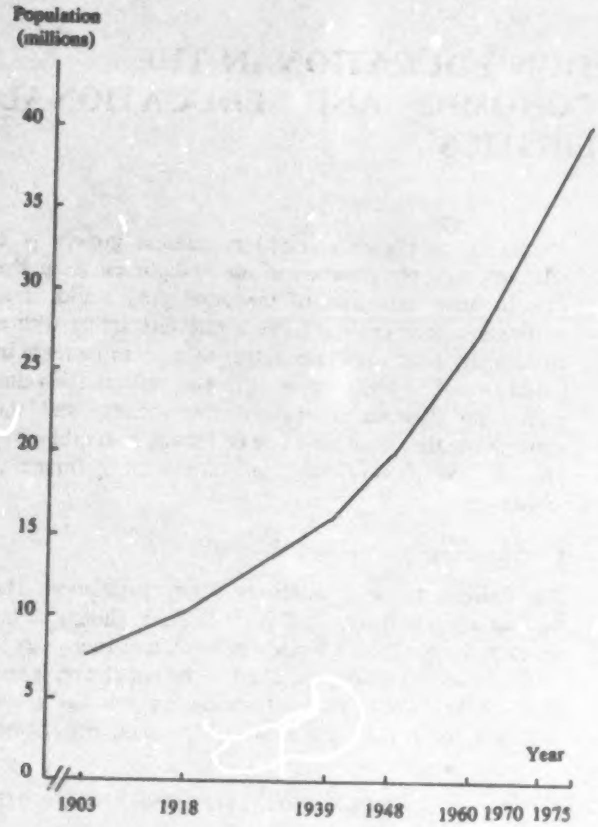
---

(1) Mercedes B. Concepcion. *The Philippines. Country Profile.* Series of the Population Council and the International Institute for the Study of Human Reproduction. Columbia University, New York. The Population Council, June 1970, page 2.

(2) *Population of the Philippines*, ESCAP, country Monograph Series, n° 5, Economic and Social Commission for Asia and the Pacific, Thailand, 1978, page 36.

(3) *Ibid.*, page 38.

Figure I : *Population growth in the Philippines, 1903-1975.*



Source : Based on data in table 2.

Population of the Philippines, ESCAP Country Monograph Series, N° 5. Economic and Social Commission for Asia and the Pacific. Thailand 1978 page 12.

From the economic standpoint, the young age structure places a heavy burden on the active population as it absorbs an increasing share of the economy's productivity to finance the health, education and welfare needs of the nation's children, and creates demands for accelerated economic growth. The dependency ratio, which is the ratio of the non-productive age groups to the working-age population, is high, and, since unemployment is also high, the actual burden of dependency is even greater.

Geographical Distribution and Migration

In the post-war years, the average population density increased from 64.1 in 1948, 90.3 in 1960, and 122.3 in 1970, to the current level of about 140.2 persons per square kilometre. Only Hong Kong, Singapore, Bangladesh, India, the Republic of Korea and Sri Lanka have higher average densities than the Philippines.

As shown in Figure II, the Philippines' population is heavily concentrated in three regions – Metropolitan Manila, Central Luzon and Southern Tagalog which together account for 23.7 per cent of the total land and contain over 34 per cent of the total population (1). Manila itself, with less than 1 per cent of the country's total land area, contains more than 11 per cent of its population, giving it the extremely high density of 38,619 persons per square kilometre (2).

The most rapidly growing areas of the Philippines during the post-war period, especially during the 1950's, were the regions within the relatively sparsely settled island of Mindanao. These were the recipients of relatively heavy 'pioneer settlement' (3) in-migration in response to the availability of fertile land and the Government-sponsored settlement schemes to promote more balanced regional development. Manila also grew rapidly during the 1948 - 1975 period, but because of its small size, the city itself was unable to absorb the large numbers who were employed or seeking employment within its borders. Consequently, the population of Manila spilled out to a wide network of suburbs in the Southern Tagalog and Central Luzon Regions. Manufacturing and industrial concerns also began to locate in these areas, in preference to the congestion of Manila, further contributing to their growth.

Most of the other areas of the country have a smaller share of the total population now than at the time of independence ; they have experienced out-migration to other rural areas, especially to the island of Mindanao, or to Manila and its suburbs. Migration over comparatively long distances, for agricultural settlement and urban (Manila) employment, is thus a comparatively common experience in the Philippines. In 1970, 13.2 per cent of the population were living in regions other than their regions of birth (4).

Urbanization

One-third of the Philippine population presently lives in the urban areas. However, as shown in Table 2, the pace of urbanization slowed down considerably after 1960 although the rate of growth of population in the urban areas was relatively higher than in the rural areas. This relative decrease in the growth rate of urban population was related to trends in the Philippine economy : after 1960, capital intensive, labour-saving approaches to industrialization and the declining growth of the industrial sector limited the capacity of urban industry to absorb migrants from the rural areas at the same rate as during the 1950's.

Official Population Policy

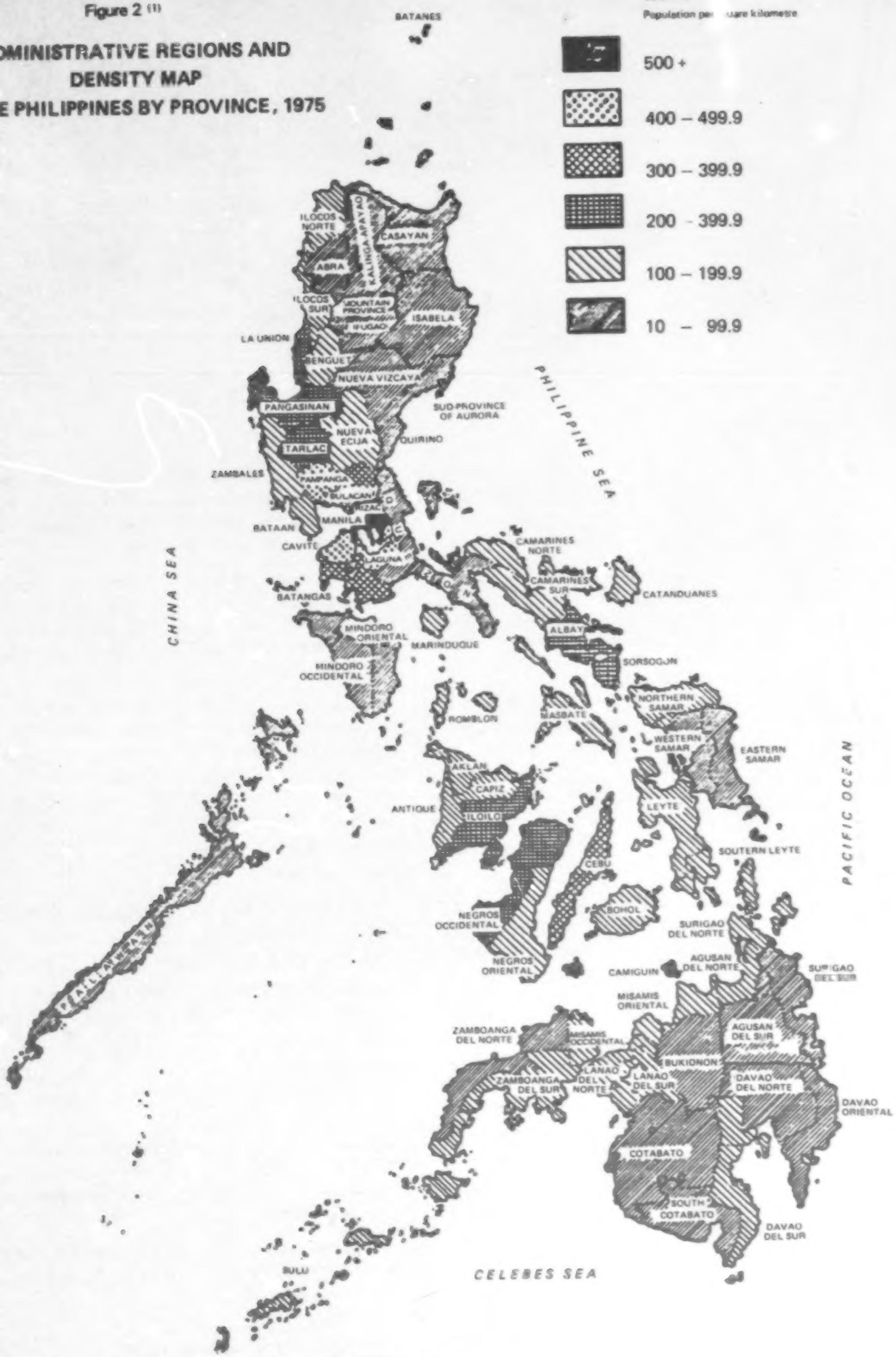
Until the 1960's, the population policy of the Philippine Government was largely pro-natalist, as a result of its concern to increase agricultural productivity through utilization of the then available vast tracts of uninhabited, but cultivable land. During the 1960's, increased informa-

---

(1) *Population of the Philippines, op. cit.*, page 22.
(2) *Ibid.*, page 27.
(3) *Ibid.*, page 53.
(4) *Population of the Philippines, op. cit.*, page 45.

Figure 2 (1)

ADMINISTRATIVE REGIONS AND DENSITY MAP OF THE PHILIPPINES BY PROVINCE, 1975


LEGEND
Population per square kilometre
■ 500 +
▨ 400 – 499.9
▨ 300 – 399.9
▦ 200 - 399.9
▧ 100 – 199.9
▨ 10 - 99.9
BATANES
ILOCOS NORTE
KALINGA APAYAO
CASAYAN
ABRA
ILOCOS SUR
MOUNTAIN PROVINCE
IFUGAO
ISABELA
LA UNION
BENGUET
NUEVA VIZCAYA
PANGASINAN
SUD-PROVINCE OF AURORA
NUEVA ECIJA
TARLAC
QUIRINO
PHILIPPINE SEA
ZAMBALES
PAMPANGA
BULACAN
RIZAL
BATAAN
MANILA
CAVITE
CAMARINES NORTE
CHINA SEA
LAGUNA
CAMARINES SUR
CATANDUANES
BATANGAS
MINDORO ORIENTAL
ALBAY
MARINDUQUE
MINDORO OCCIDENTAL
SORSOGON
NORTHERN SAMAR
ROMBLON
MASBATE
WESTERN SAMAR
EASTERN SAMAR
AKLAN
PACIFIC OCEAN
CAPIZ
ANTIQUE
ILOILO
LEYTE
SOUTERN LEYTE
CEBU
BOHOL
SURIGAO DEL NORTE
NEGROS OCCIDENTAL
NEGROS ORIENTAL
AGUSAN DEL NORTE
CAMIGUIN
SURIGAO DEL SUR
MISAMIS ORIENTAL
PALAWAN
ZAMBOANGA DEL NORTE
MISAMIS OCCIDENTAL
AGUSAN DEL SUR
BUKIDNON
ZAMBOANGA DEL SUR
LANAO DEL NORTE
LANAO DEL SUR
DAVAO DEL NORTE
DAVAO ORIENTAL
COTABATO
SOUTH COTABATO
DAVAO DEL SUR
SULU
CELEBES SEA

Source: Prepared by the University of the Philippines Population Institute.
Note: The province of Pangasinan, formerly included in Central Luzon, is now part of Ilocos.

(1) *Population of the Philippines, op. cit.*, page 23.

Table 2 : *TOTAL, RURAL AND URBAN POPULATION, THEIR RESPECTIVE ANNUAL GROWTH RATES* [a], *LEVEL*[b] *AND TEMPO*[c] *OF URBANIZATION, 1948, 1960 and 1970 (1)*

Census Year	Total Population		Rural Population		Urban Population		Level of Urbanization [b] (%)	Tempo of Urbanization [c]
	Number (000)	Annual growth rate (%) [a]	Number	Annual growth rate (%) [a]	Number (000)	Annual growth rate (%) [a]		
1948	19,234.2	1.91	14,050.5	1.17	5,183.7	4.25	27.0	3.09
1960	27,087.7	3.06	19,015.2	2.70	8,072.5	3.98	29.8	1.28
1970	36,684.5	3.01	24,615.7	2.56	12,068.8	4.02	32.9	1.46

a Exponential rates.
b Level of urbanization refers to the proportion of population living in urban places.
c Tempo of urbanization is the difference between the urban and the rural rates of growth (URGD).

tion about the size and the rather high rate of growth (more than 3 %) of the country's population generated considerable concern regarding the implications of such a policy for future socio-economic development.

Therefore, in the late 1960's, the Government established bodies and promulgated policies to deal with what came to be identified as one of the primary challenges to the future development of the Philippine nation. (2)

In 1968, the Government set up a project Office for Maternal and Child Health in the Department of Health with overall responsibility for administering a population programme. In February 1969, President Marcos established a national *Commission on Population* with the responsibility, on the one hand, for the promotion and dissemination of information related to all aspects of the population situation in the Philippines and the impact of medical, social, economic and cultural factors on population phenomena ; and on the other, the responsibility to formulate population policy and programme recommendations for the Government. The Commission determined that a reduction in the rate of growth should be an important part of the national development strategy and made a series of recommendations to this end which were approved by the President in December 1969. In 1970, the President empowered the Commission on Population to co-ordinate and direct the national population programme as an integral part of the national development strategy, and, in 1971, the Parliament-Congress of the Philippines passed the Population Act which established a national *policy on population* and a *national family planning programme.*

Since then, the Government, through Presidential Orders and Decrees and through Legislative Acts, has strengthened the national family planning programme in the following ways : (3)

- The Government's contribution to the national family planning programme has increased to 61 per cent of the total budget in 1977.

- All universities, colleges, schools, government offices, mass media, civic, voluntary and religious organizations and business and industrial enterprises have been directed to promote the concept of family welfare, responsible parenthood and family planning.

- The Population Education Programme, responsible for the coordination of population education at all levels of the educational system, both in- and out-of-school, has been permanently established in the Ministry of Education and Culture.

- All schools of medicine, nursing, midwifery, allied medical professions and social work have been directed to integrate family planning into their curricula and to require from their graduates sufficient instruction in family planning as a prerequisite to qualifying for the appropriate licensing examination.

- Tax exemptions for dependents have been limited to four dependents.

- Maternity leave benefits have been limited to a mother's first four deliveries.

- All establishments which are required by law to maintain a clinic or an infirmary have been directed to provide free family planning services to their employees.

- The importation of contraceptives and the distribution of contraceptives through commercial channels, as well as through duly licensed drugstores and pharmacies, have been legalized.

- The requiremens for certification of collective bargaining agreements have been extended to include a provision for family planning services to all workers covered by these agreements.

- Modern surgical techniques of contraception have been deemed to be acceptable, as long as these methods do not involve abortion.

---

(1) *Population of the Philippines.*, page 81.

(2) *Republic of the Philippines. Four-Year Development Plan, FY 1974 - 1977.* Manila, 1973, page 16.

(3) *Population of the Philippines, op. cit.*, pages 172 - 174.

Intensification of the family planning programme is one of the twelve major measures which form an interrelated development strategy in the Philippine *Four-Year Development Plan, FY 1974 - 1977*. The Government's analysis of the problems posed by the increase in the size and the rate of growth of the population is presented in the Plan in the following terms :

"The most recent Census of Population placed the total Philippine population at 36.7 million in 1970, indicating that the population has grown at a rate of 3.01 per cent annually in the last ten years. By 1975, the population would have grown to 42.5 million and, by 1980, to 49.2 million.

Unless this rapid rate of population growth is checked, future development efforts would be doubly difficult. In the first place, a high population growth rate imposes needs that eat up vital and critical development resources. In the second place, it magnifies the unemployment problem, generating an additional pressure on the economy to provide more jobs and raise income levels." (1)

The Plan lists seven constraints to the general objective of Philippine development which it describes as the "general development goal of improving the standards of living of the greater mass of the population" (2). Each of these constraints has a population dimension, beginning with the constraint of the rapid rate of growth, which is the first to be discussed, and continuing with the problems of unemployment and under-emloyment, income inequality, low standards of living in the rural areas, inadequate infrastructure, and tight balance-of-payments and rising prices (3).

These constraints to the development of the Philippine economy and the Government's response to their challenge are described briefly in the following section. This overview is intended to provide an understanding of the general reform movement of the early 1970's which was rationalized and systematized in the Development Plan, and the place of the Population Education Programme, one of the many programmes that were envisioned as mutually reinforcing measures to achieve an improved quality of life for the Filipino people.

ECONOMIC CHALLENGES

In the post-war period of the 1950's and the 1960's, the economy of the Philippines developed along the lines that had been established during its colonial period. The rural sector, consisting of agriculture, forestry and mining, produced the food and the exports to support the development of a modern, largely capital-intensive industry through the importation of capital goods and intermediate products to be used for the local manufacture and finishing of consumer goods. The Government's fiscal and trade policies largely confined manufacture to import substitutes for the local market.

Due to the Philippines' considerable natural resources and to the initially growing consumer market, this pattern of economic development achieved considerable success. "Since 1950, the GNP has more than trebled in real terms, representing an annual rate of growth of nearly 6 per cent in total output and of about 3 per cent per head" (4). Agriculture, the largest sector of the economy which, by 1970, was utilizing over three-quarters of the rural labour force (the equivalent of slightly over one-half of the entire labour force) (5), contributed significantly to this growth. During the 1950's and 1960's, the average annual rate of growth of agricultural production was about 4 per cent, and agricultural incomes in real terms increased at an average rate of between 2 and 3 per cent per year (6).

The economy also benefitted substantially from the nation's vast forests and extensive mineral resources which, although only partially explored, are estimated to be enormous. Known assets include some of the world's largest deposits of chrome and nickel, and large quantities of other metallic and non-metallic minerals (7). Even at the present state of the development of the mining industry, the Philippines is the top exporter of chromite and the eighth-largest producer of gold in the world ; it is the largest producer and exporter of copper in Asia and is expected to reach a similar position with sulpher. During the period between 1960 and 1970 alone, the export of minerals more than tripled, and by 1970, both wood and minerals, which tended to be exported as raw materials or intermediate products, accounted for more than 40 per cent of the nation's exports. Despite this growth, throughout the entire period, these two rural sub-sectors absorbed a very small fraction of the labour force.

The growth in urban manufacturing, which employed between 10 and 12 per cent of the labour force throughout this period, was even more impressive : between 1950 and 1970, manufacturing grew at an average rate of approximately 8 per cent per year, and by 1971, the average income of urban families was more than double that of rural families.

However, the strains that were inherent in the organization of the Philippine economy became increasingly apparent during the 1960's, in the gradual deceleration in the growth of both the agricultural and the industrial sectors, in the increasing levels of unemployment and underemployment, and in the growing inequality in income distribution (8). Each of the problems arising from the Philippine economic structure was compounded by the growth in the numbers of resource-consuming preproductive chidren and employment-seeking young adults.

---

(1) *Four-Year Development Plan, FY 1974 - 1977, op. cit.*, page 16.

(2) *Ibid.*, page 4.

(3) *Ibid.*, pages 16 - 18.

(4) ILO. *Sharing in Development : A Programme of Employment, Equity and Growth for the Philippines*. ILO. Geneva, 1974, page 5.

(5) Azizur Rahman Khan. "Growth and Inequality in the Rural Philippines". in *Poverty and Landlessness in Rural Asia*, Geneva, ILO, 1977, page 233.

(6) *Sharing in Development, op. cit.*, page 59.

(7) These include copper, sulpher, gold, silver, iron, manganese, coal, mercury, platinum, salt, clay, limestone and marble.

(8) The basic thesis of the ILO Comprehensive Employment Strategy Mission to the Philippines whose report is published as *Sharing in Development*, op. cit.

Agriculture and Industry

The 1950's were the main period of agricultural expansion. Productivity increased by 4.5 per cent per year, largely due to the expansion of cultivated land through Government policies encouraging internal migration to the more sparsely settled regions (1). As the pace of expansion slowed during the 1960's, the average annual rate of increase in agricultural production dropped to 3.5 per cent. With a population growth rate of approximately 3 per cent per year, the respective annual net gain for these two decades averaged 1.5 and 0.5 per cent. Thus, by the end of the 1960's, the agricultural sector was unable to adequately meet the consumption needs of the growing population and simultaneously generate sufficient foreign exchange earnings to support imports necessary for the rapid growth of the industrial sector. The fact that agricultural productivity could not meet both domestic and export needs resulted in a surplus of rural labour ; inflated prices of agricultural products on the domestic market ; food-importation, which exacerbated inflationary pressures and worsened the country's balance-of-payments position ; and a decline in the rate of growth of urban industry.

Throughout the 1950's and the 1960's, the vast majority of the families engaged in agriculture were small-scale tenant farmers who produced the rice, maize and other food products for domestic consumption, or else were employees in export-oriented sugar, coconut, pineapple and banana plantations. Land ownership was the privilege of the few (2) ; consequently, the benefits obtained from improved productivity and rising prices accrued to only a small proportion of the rural populace. The economic position of the top quintile improved ; the position of other groups worsened, with the lowest 20 per cent experiencing the greatest proportionate loss (3). Thus, the problem of poverty in the Philippines was largely a problem of rural poverty, and the problem of inequity was seen most acutely in the income differentials of the rural population. In the 1974 - 1977 Development Plan, the Government identified the nation's poorest as the 29.4 per cent of the population who earned below Pesos 1,500 in 1971, and noted that almost all of these 1.87 million families (representing 88.8 per cent of the total) were living in the rural areas (4).

Regional imbalances in the economic position of agricultural families also increased during this period, with three of the five regions that were disadvantaged at the beginning of the 1960's, in a worsened position at the beginning of the 1970's, as a result of the uneven distribution of efforts to provide irrigation, credit facilities and improved transportation (5).

Urban industry also experienced an initial spurt and subsequent deceleration of growth during the period prior to 1970. During the 1950's, manufactury grew at an average rate of 11 per cent per year, but in the 1960's, the rate of growth for this sector of the economy was, on the average, 5 per cent per year (6). The Government's fiscal and trade policies discouraged manufacture for export, and the worsening economic position of a majority of the population reduced the demand for the increasingly costly consumer goods that were the main products of manufacture. The low level of agricultural productivity further constrained industrial growth, since the resulting rise in food prices and the importation of food directed the urban economy away from investment and used up foreign exchange earnings that otherwise would have been available for industrial expansion.

The initial growth in Philippine manufacture had been achieved through a reliance on capital-intensive production, which dominated Philippine industry to an unusual degree. "By international standards, the Philippines stands well apart from the 'normal' trend for a country of its size and income per head, in view of the pronounced absence of medium- and small-scale rural industry" (7), and thus the industrial sector was also unable to absorb the nation's fast-growing supply of labour (8).

The increasing incapacities to generate employment in both industry and agriculture resulted in growing unemployment and underemployment. Between 1960 and 1970, the rate of increase in unemployment was 59 per cent (9), and by the beginning of the 1970's, the Government estimated that the proportions of the labour force that were unemployed and underemployed were 5 to 7 per cent and 16.2 per cent respectively (10).

Government Responses

By the end of the 1960's the interrelated problems of low productivity, poverty, unemployment and inequality had become a serious concern to the Government, which responded by formulating new policies intended to change the direction of and give new impetus to the Philippine economy. Most of the reforms of the early 1970's were measures which had been tentatively introduced or partially implemented during the previous decades. They attained their innovatory status through their greater comprehensiveness and more detailed attention to the requirements of their implementation, and to the fact that they were conceived as mutually reinforcing links in an overall strategy to achieve clearly defined national objectives of the highest priority. The economic reforms which had been promulgated in Legislative Acts and

---

(1) The average annual increases for the 1950's and the 1960's were 4 per cent and 1.4 per cent respectively, and the "increase in area of land under cultivation accounted for more than 80 per cent of the growth in output, while increase in yield per unit of area of cultivated land accounted for less than 20 per cent". *Sharing in Development, op. cit.*, page 442.

(2) "No figures exist, but land ownership is believed to be highly concentrated". *Sharing in Development, op. cit.*, page 57.
The tenancy rate generally is placed at between one-third and one-half of all agricultural families.

(3) *Sharing in Development, op. cit.*, pages 10 - 11.

(4) *Four-Year Development Plan, FY 1974 - 1977, op. cit.*, page 16.

(5) *Sharing in Development, op. cit.*, page 61.

(6) *Ibid.*, pages 14 - 15.

(7) *Sharing in Development, op. cit.*, page 30.

(8) With an average annual growth in urban industrial employment of only 1.4 per cent, the per cent of the labour force in this sector dropped from 12.9 per cent in the 1950's to 10.5 per cent in the late 1960's.

(9) *Population of the Philippines, op. cit.*, page 228.

(10) *Four-Year Development Plan, FY 1974-1977, op. cit.*, page 16.

Presidential Decrees, and were systematized in the national Development Plan of 1974 - 1977 were intended to achieve : the promotion of employment, maximum economic growth, more equitable income distribution, balanced regional development, price and balance-of-payments stability, and improved social welfare.

One of the most important of the many new policies was the *Land Reform* of 1972. By virtue of the Presidential Decree N° 27, all tenant farmers on private agricultural land primarily allocated to either rice or maize cultivation were to be granted title to the land, with appropriate compensation to the owner by the tenant at rates and intervals established by the Government. This land reform was considered a basic precondition for increased rural productivity, more balanced development of the rural sector, creation of rural employment and a reduction of economic and social inequalities. Land reform was felt to require a supporting network of services to achieve its intended outcomes and, hence, strengthening the *cooperative movement* was another major element in the national development strategy.

The reforms of the 1970's also included efforts to reduce the unacceptably high levels of open and disguided unemployment and thereby arrest the decline in wages. On the one hand, the Government introduced changes in fiscal and trade policies to redirect industry towards the *manufacture of commodating for export and capital goods* for the domestic market. On the other, the Government increased its support for the *development of small-scale, labour-intensive* manufacture for both the domestic and the export markets and encouraged the use of more labour-intensive techniques in predominantly capital-intensive manufacture. "Non-traditional" exports that made use of local materials and thus had a strong linkage with the primary sector were encouraged especially. The creation of small-scale, labour intensive units capable of producing the basic requirements of the domestic market was intended not only to increase employment, *per se*, but also to promote more balanced regional development. All these measures were supported by a variety of fiscal reforms, including increased public investment in infrastructure and public services, especially in the underdeveloped regions ; *tax reforms* to raise needed revenue more equitably and efficiently ; *credit reforms* ; broadened provision of *education, housing and health* ; and the previously-discussed *national family planning programme.*

SOME FACTS ON HISTORY AND CULTURE

The traditional cultures of the Filipino people represent the fusion of elements that were carried by successive waves of migrants from Malaya, and, to a lesser extent, from Borneo and Sumatra ; inputs obtained through early trade with other parts of Asia, particularly India and the Middle East ; and additions from the Islamic culture which was brought by the Arab traders who established a religious and political foothold in the islands in the 14th and 15th centuries.

In the 16th century, Catholicism was introduced to the Philippine people through Spanish colonization. Today, the vast majority of Filipinos (90 per cent) are Roman Catholic Christians. The peoples who resisted religious conversion included the Muslims, the Igorot or mountaineer groups, and the Chinese who became important retailers and craftsmen in the 16th century.

However, neither religious conversion nor political imposition affected the basic distinctions of language, kinship and culture of the Filipino people. There are estimated to be at least 55 different ethnographic groups, speaking a total of more than 90 languages and dialects, and 135 sub-dialects, in the Philippine islands(1). According to the 1970 Census, no single language is the mother tongue of more than a fourth of the population. The Government has promoted a form of Tagalog, called Filipino, as the national language, and the 1970 Census showed that slightly over one-half of the population can speak this language. Although the mother tongue of only a very small group, English is understood and can be spoken by about 45 per cent of the people (2).

The three-hundred year Spanish rule was brought to a close by the revolution of 1896, but independence lasted only one year. In 1898, in accordance with the terms of the Treaty of Paris which ended the Spanish-American War, the Philippines became an American colony. The planned transition of the islands to full independence, which began in 1935 with the granting of commonwealth status for a ten-year period, was interrupted by the Japanese occupation in 1942, as part of its war against America. With the Japanese surrender in 1945, the commonwealth government was re-established, and on 4th July 1946, the Philippines achieved full political independence. The political organization of the newly independent nation was similar to that found in the United States, with a separation of executive, legislative and judicial powers, reinforced by a system of checks and balances ; legislative power vested in a two ; and the highest representatives of the executive branch, the President and Vice-President, elected every four years. The administration, however, reflected the greater centralization generally found in European countries, with a vertical structure descending from the national level to the provincial, municipal and village (or *barrio*) levels. The highest provincial and municipal officials were elected ; those of a lower rank were appointed by the Government.

EDUCATIONAL CHALLENGES AND RESPONSES

One of the major development strategies to improve the standard of living for the greater mass of the Philippine population set forth in the 1974 - 1977 Development Plan was the promotion of social welfare through improved housing, health and education (3). Although educational provision, participation and attainment represented notable achievements of the Philippine nation, especially

---

(1) *Population of the Philippines, op. cit.*, page 4.

(2) *Ibid.*, page 5.

(3) *Four-Year Development Plan, FY 1974 - 1977, op. cit.*, page 6.

Table 3 : *DISTRIBUTION OF THE POPULATION 6 YEARS OLD AND OVER, BY HIGHEST LEVEL COMPLETED IN 1948, 1960 AND 1970. (1)*

	1948	1960	1970
Both sexes			
No grade completed	43.50	29.14	18.90
Elementary	47.34	55.57	58.98
High school	7.39	10.99	15.04
College	1.77	4.30	7.09
Total population 6 years old and over	100.00 (15,673,582)	100.00 (21,557,572)	100.00 (29,609,044)

in view of the rapid growth of the school-age population, the educational system was also viewed as contributing to social inequality and regional imbalance. Further, the increasing inability of school-leavers, even at the tertiary level, to find employment, was attributed in part to the academic orientation of the curriculum. These concerns led to the creation, at the end of 1969, of a Presidential Commission to Survey Philippine Education. The Commission's recommendations concerning educational policy and practice, although not adopted in their entirety, formed the basis of the Presidential Decree of 1972 which established a ten-year education development programme, with funding and implementing mechanisms to reorient the direction, scope and management of Philippine education.

Organization and Achievements of the Formal Educational System

The system of formal education in the Philippines is organized into three tiers (see Figure III). Pupils begin their six years of free *elementary* schooling at seven years of age, followed by four years of fee-paying *secondary* school and four-to-five years of *college* or higher education. Practically all elementary-school students (96 per cent) attend public schools ; at the secondary and the higher levels, the proportions drop to one-third and less than one-tenth, respectively. Virtually all *pre-primary* education is private (2).

The formulation of educational policy is the responsibility of the National Board of Education, which is chaired by the Minister of Education and Culture (formerly the Secretary of Education) (3). The system is administered and supervised by the Department of Education and Culture, which has four major services : Planning, Administration, Finance and Management, and Information and Publications. As a result of the reorganization recommended by the Presidential Commission, each level of the educational system now is managed and directed by a unit within the Department : the Bureau of Elementary Education, the Bureau of Secondary Education, and the Bureau of Higher Education.

The importance attached to education by both the Government and the people is demonstrated by the high commitment of public funds which supported the extremely rapid quantitative expansion of the educational system during the post-war decades - an expansion that placed the Philippines among the world's top-ranking nations in educational enrolment and attainment.

In 1971, the Government's annual expenditure on education represented one-third of the national budget, and 3.4 per cent of the GNP. "Adding public to estimated private expenditures, the ratio of total educational expenditures to GNP approached 4 per cent" (4).

Enrolment rates at all three levels of the educational system were high. In spite of the very high growth rates of the school-aged population (3.4 per cent for the elementary ages of 7 - 12, 4.3 per cent for the secondary ages of 13 - 16, and 3.2 per cent for the college ages of 17 - 20, in the decade of the 1960's alone) (5), a higher proportion of the nation's youth were enroled in all three levels of the educational system in 1970 than in the mid-1950's. This involved a tremendous expansion of the educational system. Thus between 1950 and 1960, elementary enrolments more than doubled, with an average annual growth rate of 4.0 per cent ; secondary enrolments almost quadrupled, with an average annual growth rate of 7.1 per cent ; and college enrolments tripled, with an average annual growth rate of 6.8 per cent (6).

These achievements make the educational attainment of the Philippines one of the highest in the world. By 1970, the national literacy rate had reached 83.4 per cent of the people who were at least 10 years of age. By the same year, over 80 per cent of the population had completed at least one level of education with the greatest rate of increase at the third level.

---

(1) *Population of the Philippines, op. cit.*, page 234.

(2) *Sharing in Development, op. cit.*, pages 304 - 305.

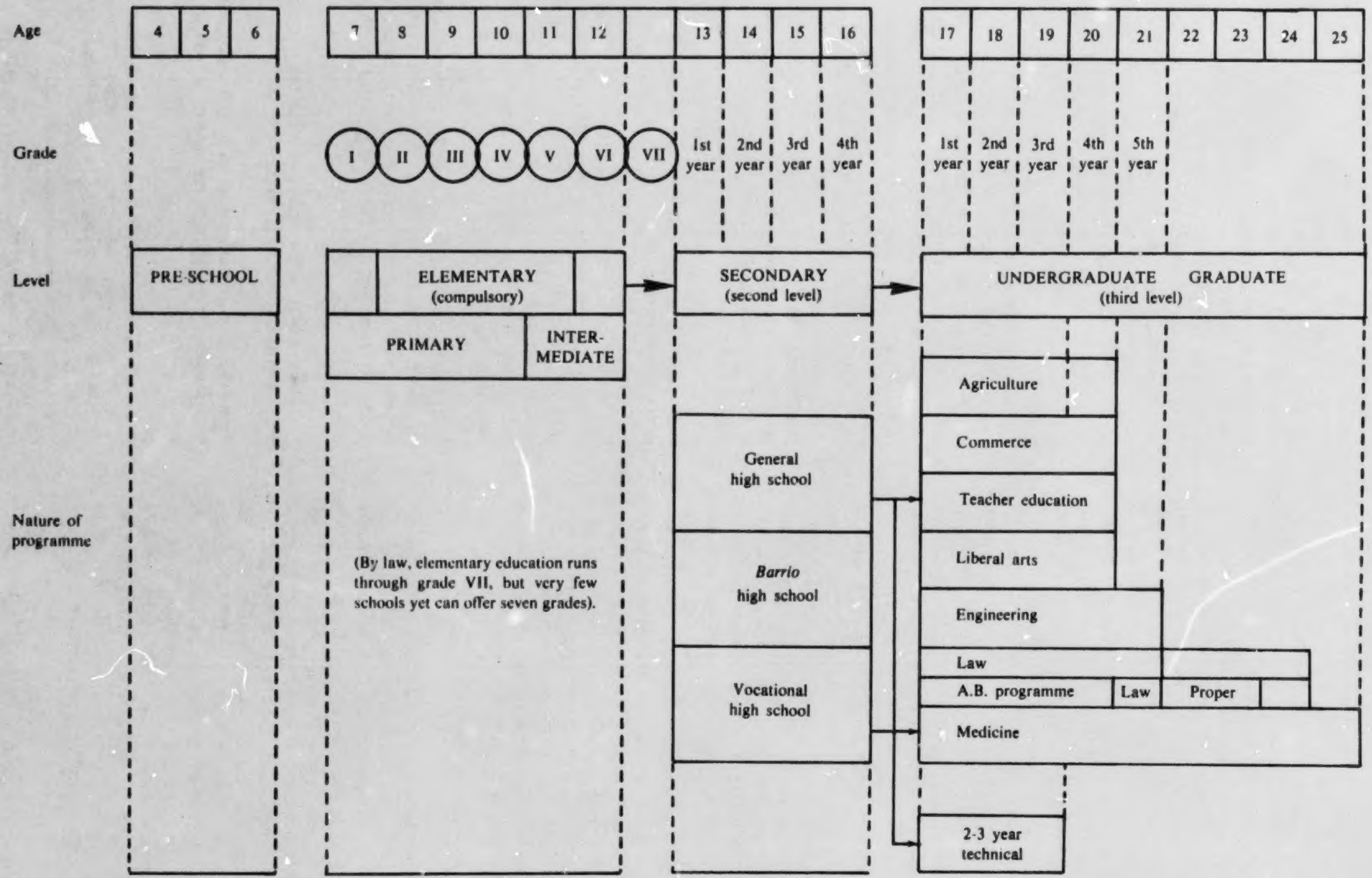
(3) Various other bodies contribute to educational policies, including : the Philippine Congress which passes policy resolutions and legislation pertaining to finance, institutional establishment and curricular requirements ; and various professional and service bodies which influence curriculum development.

(4) *Sharing in Development, op. cit.*, page 305.

(5) *Population of the Philippines, op.cit.*, page 246.

(6) *Population of the Philippines, op. cit.*, pages 245 - 247.

Figure III : Structure of the formal system of education of the Philippines, 1973


Age
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
Grade
I
II
III
IV
V
VI
VII
1st year
2nd year
3rd year
4th year
1st year
2nd year
3rd year
4th year
5th year
Level
PRE-SCHOOL
ELEMENTARY (compulsory)
PRIMARY
INTER-MEDIATE
SECONDARY (second level)
UNDERGRADUATE
GRADUATE
(third level)
Nature of programme
(By law, elementary education runs through grade VII, but very few schools yet can offer seven grades).
General high school
Barrio high school
Vocational high school
Agriculture
Commerce
Teacher education
Liberal arts
Engineering
Law
A.B. programme
Law
Proper
Medicine
2-3 year technical

Population of the Philippines, op. cit., page 243

The Need for Educational Reform

However, by the late 1960's, the need for educational reform had become clearly evident in the considerable numbers of the "educationally disadvantaged", especially the rural poor and the inhabitants of the underdeveloped regions, and in the "educationally advantaged" job-seeking college graduates. Family income determined educational opportunity at the post-elementary, and especially at the college level, with only the top 10 per cent of Philippine families able to afford the cost of a college eduction (1). There also were considerable differences in enrolment and attainment between the urban and the rural areas and between the more and the less developed rural regions. By the beginning of the 1970's, 21 per cent of the urban residents but only 4 per cent of the rural residents who were at least 25 years old had completed college (2). The distribution of secondary schools and enrolments closely followed other aspects of regional differentiation with high concentrations in Manila, Central Luzon and Southern Tagalog, and comparatively sparse provisions elsewhere.

One-half of the Philippines' unemployed were -and continue to be - young people between 15 and 29 years of age (3). Of special concern was the fact that the possibility of finding employment was not appreciably greater for those who had attended or completed college than for elementary or secondary drop-outs or school-leavers. By the late 1960's, about one-third of the college graduates were unable to find employment, with even higher unemployment rates for graduates in the fields of education, commerce and business, and the liberal arts (4). And among the group with only one to three years of college, the unemployment rate was as high as two-thirds. In addition, in order to finally gain employment, a large proportion of college graduates had to accept a job in a field for which they had not been prepared, and, often, at a lower level than they had come to expect.

Educational Reforms of the 1970's

As a result of the increasing dissatisfaction with the disregard for equity and the output of the educational system, the President appointed a Presidential Commission to Survey Philippine Education in December 1969. The Commission was directed to review and assess the extent to which the educational system was contributing to national development goals, especially to the goals of human development, and the manpower required for social and economic growth, and to recommend changes in policies and procedures that would contribute to the improved efficiency and quality of the system. The Commission's scope was wide ; it was instructed to consider all aspects of the educational system, including the aims, curricula, methods, teacher training, facilities and equipment, administration, staffing and financing (5).

The Commission's report, *Education for National Development : New Patterns, New Directions*, which was produced after a year of intensive study of the entire educational system, identified major weaknesses in the aims and directions of Philippine education that reverberated in educational planning, management, content and pedagogy. The major thrust of the Commission's analysis was that, in practice, the educational system prepared students for the next higher year of schooling, instead of preparing them for social responsibility and economic productivity (6). The general view that 'more' education is better coupled with the rapid rate of population increase had generated an unacceptable pressure on national resources. To relieve this pressure and also to assure more acceptable employment levels for the nation's youth, it would be necessary to increase the relevance and the vocational orientation of the secondary school and to strengthen the system of post-secondary technical institutes to train critically needed middle-level manpower, while simultaneously instituting measures to decrease college enrolments.

This view that secondary schooling was to equip a majority of students to move either directly or with a short pause at a post-secondary technical institute into the world of social responsibility and occupational productivity was a major innovation. It made termination of education before college graduation an educational objective, which entailed drastic changes in administration, curriculum, supporting educational materials and equipment, and teacher training. It also implied complementary changes at the elementary level. The Commission's criticisms of elementary education covered both the content of the curriculum and the prevailing methodology. They found the curriculum to be overcrowded with factual subject matter, and the educational process to overemphasize rote learning within an authoritarian classroom atmosphere (7).

The Commission's analysis and many of its specific recommendations (8) were incorporated in the new Constitution and the Presidential Decree of 1972, referred to as the Educational Development Decree of 1972. This decree set forth the following aims for Philippine education :

"It is hereby declared to be the policy of the government to ensure within the context of a free and democratic system, maximum contribution of the educational system to the attainment of the following national development goals :

To achieve and maintain an accelerating rate of economic development and social progress ;

To assure the maximum participation of the people in the attainment and enjoyment of the benefits of such growth ; and

---

(1) Educational Survey Report. *Education for National Development : New Patterns, New Directions.* Manila, December 1970, pages 50 - 51. In addition, only the top 25 per cent of Philippine families could afford the cost of a private high school.

(2) *Population of the Philippines, op. cit.*, page 235.

(3) *Ibid.*, page 228.

(4) *Education for National Development, op. cit.*, page 39.

(5) *Ibid.*, pages VII - 14.

(6) *Education for National Development, op. cit.*, pages 8 - 14.

(7) *Sharing in Development, op. cit.*, pages 318 - 319.

(8) Most of the other recommendations of the Commission have to do with the administrative, financial and curricular changes required to achieve a more relevant educational system.

–To strengthen national consciousness and promote desirable cultural values in a changing world."

Accordingly the educational system should :

"Provide for a broad general education that will assist each individual to attain his potential as a human being, to enhance the range and quality of individual and group participation in the basic functions of society, and to acquire the essential educational foundation for his development into a productive and versatile citizen ;

Train the nation's manpower in the middle-level skills required for national development ;

Develop the high-level professions that will provide leadership for the nation to advance knowledge through research, and apply new knowledge for improving the quality of human life,

Respond effectively to changing needs and conditions of the nation through a system of educational planning and evaluation" (1).

The Decree also outlined a ten-year educational development strategy, beginning with administrative reorganization and continuing with financial and curricular reforms. The high priority placed on the rapid and effective implementation of the specific projects that were to transform the educational system is conveyed in the 1974 - 1977 Development Plan : "The urgency for reforms in the overall educational system is imperative in view of the many inherent weaknesses in the educational structure" (2).

These projects ranged from the establishment of new training institutions and programmes to major curricular change. A vocational component of gradually increasing dimensions was introduced into both the elementary and the secondary curricula. New topics of social relevance were added to the programme of studies. The contribution of one of these topics, *population education*, to the overall reform of the educational system will be detailed in the subsequent parts of this study.

---

(1) *Four-Year Development Plan, FY 1974 - 1977, op. cit.*, pages 320 - 321.

(2) *Ibid.*, page 322.

PART II

THE POPULATION EDUCATION PROGRAMME OF THE PHILIPPINES : ORGANIZATION, STRUCTURE AND IMPLEMENTATION

INTRODUCTION

Population education was one of the new dimensions which were added to the school curriculum as part of the educational reforms of the early 1970's. The introduction of population education was an outgrowth of the recommendations of two different Commissions, nominated by the President, which then were incorporated into various Presidential Decrees and Legislative Acts, designed to achiece accelerated and more equitable national development. The Population Education Programme, on the one hand, was part of the national Family Planning Programme, which had been made an integral part of the national development policy in order to reduce the rapid rate of growth of the Philippine population ; and, on the other, was to strengthen the general process of curricular reform which had been initiated by the 1972 Presidential Decree, setting forth the need for increased relevance of the educational system to national conditions and needs.

The activities necessary for the institutionalization of population education in the formal school system on a regular and self-sustaining basis were begun in February 1972, with the creation of the *Population Education Programme* (P.E.P.) as a special unit in the Department of Education (now Department of Education and Culture), under the overall direction of the Secretary of Education (now Minister of Education and Culture). The importance and the sense of urgency that were attached to the execution of this Programme are shown in the Government's immediate appointment of a large full-time professional staff ; in its provision of financial support from the Department of Education's budget and the Colombo Plan Bureau's grants, pending the approval of a project proposal submitted to the United Nations Fund for Population Activities (UNFPA) ; and finally, in its commitment, expressed both in the project proposal and in various Programme documents, to establish a permanent Division of Population Education within the Department and to continue the nation-wide activity after its externally funded developmental stage.

In 1972, the United Nations Fund for Population Activities approved the Philippine request for the support of a series of population education pre-project activities for a six-month period and then, in May 1973, funded for a six-year period, a large-scale national project with the intellectual and technical assistance of Unesco as Executing Agency. The newness of population education explains both the magnitude of the task that faced the staff and the extent of their achievement, summarized in a recent analysis of the field of population education :

"Early workers in the field did not have a stock of materials that they could consult, as the field of population education was new. Theirs was a pioneering rôle that has blazed a trail for others. Any country now interested for the first time in population education has access to a large volume of materials that has come from the national projects, the most productive and distinguished in this regard being the population education projects in the Republics of Korea and the Philippines" (1).

The group convened by the Secretary of Education to elaborate the project proposal for submission to UNFPA, and thereby to establish the framework of population education in Philippine schools, and the staff subsequently appointed to implement the project did not have at their disposal the extensive published resources that are available today. However, several on-going in-country population education activities and the inputs of various regional population education awareness seminars and workshops inspired their action and contributed to their experience.

EARLY POPULATION EDUCATION ACTIVITIES IN THE PHILIPPINES

By 1972, a number of pilot population education projects had been implemented in the Philippines - two at the initiative of private universities and a third within the Department of Education. As an outgrowth of an interest in family life education, the Philippine Women's University, a private university in Manila, had started population education activities in 1969, with financial assistance from USAID. Courses and materials dealing primarily with sex education, but touching on other aspects of family living, values and population dynamics had been designed to be taught on a weekly basis in Social Studies classes during the final elementary year and all four years of high school. Between 1971 and 1972, 1,500 teachers and supervisors had been trained to handle these newly developed courses.

Another private institution, the Philippine Wesleyan College, situated in Cabanatuan City, also had started a programme of population education with financial aid from the Pathfinder Fund and Family Planning International Assistance, both US-based organizations. The college's programme of population education was intended to reinforce the family planning activities which were part of the community outreach programme of the Medical Department. The college had developed courses to promote an awareness of population factors for the elementary, secondary and college levels, and had mounted related training programmes for teachers in Cabanatuan City and nearby areas.

---

(1) J.E. Jayasuriya. *Curriculum Innovation Through Population Education.* Colombo, Sri Lanka, Associated Educational Publishers, 1978, page 15.

Furthermore, the Department of Education's Division of Adult and Community Education, which had begun to develop a programme of population education, had responded favourably to the suggestion of the Regional Population Adviser of the Colombo Plan Bureau that it initiate a population education programme for the public schools. A Population Education Curriculum Workshop financed by the Colombo Plan Bureau had been organized in Manila at the Division's initiative in May and June 1970, with participants representing various levels of the educational hierarchy: supervisors, principals, high school department heads and elementary, high school and adult education teachers. The workshop participants had developed a preliminary list of the population education concepts which could be integrated into the existing Social Studies, Science, Health Education and Home Economics syllabi, at all levels from the first grade of the elementary school until the final year of high school. They also had produced teaching units and sample lesson plans for some of these concepts, which then had been introduced on a trial basis in ten school divisions.

A year later, in May and June of 1971, the Division had held a follow-up Curriculum Workshop, also through Colombo Plan funding, to review the adequacy of the trial teaching units and lesson plans and to determine the appropriate level for the introduction of various population concepts. The workshop participants were mostly supervisors of Social Studies, Science, Health Education and Home Economics and administrators in the pilot school divisions. They had produced a scope and sequence chart which classified the content of population education according to subject and grade level, more specific guides to assist teachers at each grade level to integrate population education into each of the four subject areas, and resource units on specific population education topics.

Although responsibility for population education was transferred from the Division of Adult and Community Education to the Bureau of Public Schools, Department of Education, their work provided the Population Education Programme with many important inputs. Their approach to the process of curriculum development, their decision to introduce population content at both the elementary and the high school levels through the use of population education instructional units in Science, Social Studies, Health Education and Home Economics, all shaped the design of the Population Education Programme as set forth in the project proposal and subsequently implemented by the Programme's staff. Personnel from the Division of Adult and Community Education and from the Philippine Women's University who had participated in the project formulation committee were absorbed by the Population Education Programme, and personnel from the Philippine Women's University, as well as from other population education projects served as consultants at subsequent stages of the Programme's development.

REGIONAL POPULATION EDUCATION ACTIVITIES

Many members of the project formulation committee and the Population Education Programme also could draw upon their participation in various regional population education seminars and workshops ; in particular, the Unesco Regional Office for Education in Asia, Bangkok, sponsored, in September-October 1970, a workshop on "Population and Family Education" (1), which marked a significant step in the development of population education within the Asian region. This workshop was one of the major Unesco activities which stimulated Member States to give explicit recognition to population education as a legitimate educational activity. Experience was also gained through the contribution of Unesco's population education consultant at the Asian Institute for Teacher Education situated in Quezon City. The training activities (including a fellowship programme) sponsored by the Unesco Regional Office for Education, particularly through its Regional Population Education Programme, and its Clearing House Services for Population Education, also contributed to the implementation of the Population Education Programme in the Philippines.

PROGRAMME STRUCTURE

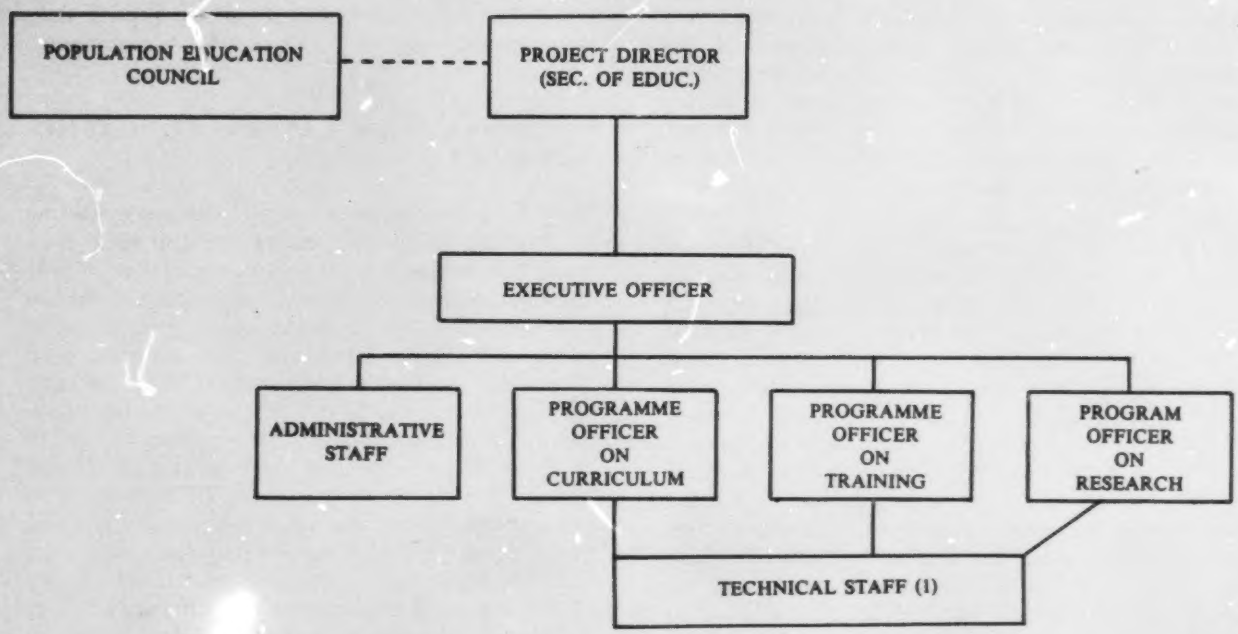
The Population Education Programme staff, appointed at the beginning of 1972, consisted of an Executive Officer (now Chief Educational Researcher), three Programme Officers (now Supervising Educational Researchers), with responsibility for each of the major components of the Programme, namely Curriculum Development, Training and Research, twelve Programme Assistants (now Educational Researchers), one researcher and supporting administrative staff (see Figure IV, following page). Since the major activity in the early days of the Programme was the preparation of curriculum materials, twelve curriculum writers were assigned to this Programme component.

Apart from the staff drawn from the Division of Adult and Community Education and the Philippine Women's University, other personnel from the Department of Education, the University of the Philippines and the Philippine Normal College were selected to provide the Programme with a mix of skills and specializations. As a multi-disciplinary team, they covered most subject specializations at the elementary, secondary and tertiary levels of the educational system, the areas of curriculum development, research and evaluation, and both pre-service and in-service training. However, most staff joined the Programme with no previous experience in population

---

(1) See Unesco Regional Office for Education in Asia - Report of an Asian Workshop, Bangkok, 1971.

Figure IV : PEP ORGANIZATIONAL STRUCTURE


POPULATION EDUCATION COUNCIL
PROJECT DIRECTOR (SEC. OF EDUC.)
EXECUTIVE OFFICER
ADMINISTRATIVE STAFF
PROGRAMME OFFICER ON CURRICULUM
PROGRAMME OFFICER ON TRAINING
PROGRAM OFFICER ON RESEARCH
TECHNICAL STAFF (1)

(1) including Programme assistants, researcher and curriculum writers.

education. To prepare them for their future activities, an intensive six-week national training course which took into account various directives of the Unesco Population Education Workshop, was held in 1970.

The population Education Programme operated under the general guidance of an advisory board, the *Population Education Council*, which had responsibility for the review of programme activities and for the coordination of the Programme with other population projects and activities. The Council was composed of members of the committee which had prepared the population education project funding proposal and of representatives of various offices and agencies, both public and private, within and outside of the Department of Education. The Council, under the Chairmanship of the Secretary of Education, was - and is - composed of the heads of the Bureaus of Public Schools, Private Schools and Vocational Education (now the Bureaus of Elementary Education, High School Education and Higher Education), the Office of the Coordinator of State Colleges, the Educational Planning Division of the Department of Education, the Philippine Women's University, the Fund for Assistance to Private Education, the Family Planning Organization of the Philippines, the Responsible Parenthood Council, the Department of Health, the Population Institute of the University of the Philippines, the Commission on Population and the United Nations Development Programme. The Council has broadened the range of professional inputs into the Programme, legitimized staff decisions and Programme activities and increased the awareness of and interest in population education among various professional milieux and organizations. In its advisory capacity, the Council has provided the Programme with the collective wisdom of a wide variety of experiences and points of view which have enriched its content and materials. The Council's examination and review has served to ensure the Programme's appropriateness with political realities and popular sensibilities and its approval of curriculum outlines, instructional materials and training plans has accorded them a degree of status which has helped the Programme to implement its activities.

With the Secretary of Education as the ex-officio Project Director and heads of prestigious units and organizations as members of its advisory board, the Population Education Programme was advantageously placed in the educational hierarchy. Without the support of these key personnel, the Programme could not have been implemented so rapidly on such a massive scale. The staff of the Population Education Programme, in effect, had access to all the schools in the country and the assistance of all educational staff.

SCOPE OF WORK

The Population Education Programme was established to undertake all activities necessary to make population education a regular and self-sustaining element of the Philippine curriculum, and to provide a basis for the institutionalization of population education in the formal school system. Two major decisions made during the project formulation stage determined the five-year scope of work and the nature of population education, as implemented in the nation's schools.

Level of Introduction

The first decision concerned the educational level at which population education would be introduced to pupils. At this early period, there were no studies available to assist the Programme planners to decide whether the type of education they envisioned was more appropriate for younger or for older children. Programme planners and staff re-examined the advantages and disadvantages of introducing population education to elementary schoolchildren or to students at the secondary level. Some of their arguments are developed here.

The advocates of the early introduction of population education felt that younger children, who are still developing attitudes and values and consequently more receptive and more likely to internalize population concerns, were the most important targets in view of the Programme's attitudinal and behavioural objectives. Postponing the introduction of population education to higher levels would deny a majority of Philippine students the opportunity of any exposure to population matters, thereby reducing the Programme's effectiveness. Similar arguments were advanced regarding teachers. Introduction at the elementary level would expose a larger number of teachers to population concepts (250,000 instead of 60,000) and, hence, exert a more wide-spread influence on community opinion, especially in the rural areas. This argument was of considerable importance since rural residents' access to new information tended to be limited by their comparatively lower levels of literacy and their lack of access to the media and printed materials. Therefore, by introducing population education at the elementary level and training teachers, the Programme could reach virtually every community in the nation. A final point made by the proponents of the early introduction of population education was that because of the greater flexibility in the use of time at the elementary level, primary school teachers would be more able than high school teachers to accommodate the additional content in their curriculum.

The advocates of the introduction of population education at the secondary level were on their part concerned with the cognitive development and level of maturity of children and their adequate understanding of population concepts. They pointed out that many issues and topics would have to be excluded, or only rapidly mentioned at the elementary level, whereas at the secondary level, when students could deal more adequately with abstraction and complexity, they could be examined in depth and breadth. They also felt that older students could manage better than younger ones the difference of opinion, controversy, and perhaps, criticism of their own beliefs which might arise in discussions characterizing population education.

Furthermore, secondary students are nearing adulthood, life's decision stage, the search for employment or marriage. Population education topics would therefore have an immediacy and relevance that would be lacking for younger children. In addition, the preparation of course content, learning materials and teachers at the secondary level would require less time and money and fewer staff than if population education were introduced at the elementary level. Considering the scarcity of local educators with any population education experience, and the virtual absence of population education programmes in other countries which could serve as models, this argument was not unimportant.

All arguments in balance were equally cogent. It was therefore with great courage that the designers of the Population Education Programme decided to include this new educational endeavour at *both* the elementary and the high school levels. And in view of the large numbers of dropouts in the elementary school, they decided that population should be introduced in the *first grade of the elementary school*, and be continued at each subsequent year of schooling until the final year of high school. This decision meant that during the five-year implementation, the Population Education Programme would have to develop the content, supporting materials and training programmes to cover each year of the educational system on a truly nation-wide basis including public and private schools in urban and rural areas.

Mode of Inclusion

The second decision that shaped the scope of work of the Population Education Programme concerned the *way* that population concepts would be introduced to the students. There were many possibilities; each offered some advantage and all posed some type of difficulty.

A "traditional" possibility of introducing population education was to incorporate it as a *separate subject*. This mode of inclusion had the advantage of maximizing the logical and coherent progression of learning and the depth and breadth of content. Since the curriculum was already overcrowded, the climate of educational opinion opposed such a "disciplinary" orientation and favoured the integration of population content around other problems of concern and relevance and other subject matters.

A closely related possibility for the introduction of population education was the "*mini-course*", a short, unified course on population problems or topics which could be taught on a weekly basis during the time allocated for a related subject like Health, Science or Social Studies. This option also found little favour, since it had the same disciplinary orientation as the separate subject, without comparable opportunity for thoroughness.

The third possibility was to *sensitize teachers* to the population dimensions of their subjects and to stimulate their creativity for introducing appropriately relevant population considerations as an integral part of their teaching. This approach can produce remarkable results when excellently conceived and executed with exceptionally motivated and insightful teacher training. However, with a measure of justified realism, the Programme planners decided that a majority of teachers might require greater structure and guidance if each successive year of population education were to be related and reinforcing.

Another possible way of including population education that avoided the problems of an "inward-looking" discipline-oriented separate subject and simultaneously provided teachers with some guidance and structure was to introduce population concepts and topics throughout the *entire curriculum*, wherever they appeared to be rele-

Table 4 : *Population Education Programme Scope-of-Work and Activities.*

Curriculum Component	Training Component	Research Component
Determine population education content, scope and sequence and methodology. Develop and produce curriculum materials for integration of population education at elementary and secondary levels : – prepare teacher's guides and reference materials – evaluate materials by specialists and revise – initiate field-testing of materials and continue revision as necessary – print and distribute on large-scale – translate into Filipino for grades I and II. Develop and produce population education course for teacher training institutions : – gather baseline data to establish needs – design course – evaluate course by specialists and revise – hold orientation seminar for pilot instructors – field-test course – revise, print and distribute on large-scale. Develop and produce curriculum materials for integration of population education in teacher training institutions : – prepare teacher's guides and reference materials – evaluate materials by specialists and revise – initiate field-testing of materials and continue revision as necessary – print and distribute on large-scale. Develop population education course for undergraduate level in arts and sciences : – prepare course outline – evaluate course by specialists and revise – hold orientation seminar for pilot instructors from five colleges – test course – revise, print and distribute on large-scale. Develop pupils' materials for elementary and secondary levels : – prepare materials – evaluate, revise and print.	Train elementary and secondary level teacher-trainers : – develop six-week training programme for elementary trainers – develop five-week training programme for secondary trainers – train teacher-trainers. Provide in-service training for elementary and secondary teachers, principals and district supervisors : – develop one-week training programme for elementary teachers – test, evaluate, revise and test revised programme, re-evaluate and revise – hold in-service training courses for elementary teachers – develop one-week training programme for secondary teachers – test, evaluate, revise and test revised programme, re-evaluate and revise – hold in-service training courses for secondary teachers. Provide in-service training for normal school instructors : – develop five-week training programme – train normal school instructors who will test integration of population education. Develop and conduct one-day orientation seminars for public and private school administrators and superintendants. Evaluate training through supervisory visits to training programmes and a regional conference of trainers.	Undertake studies related to the content of population education like : – analysis of current textbooks to determine their content – how children develop the concept of family size – parents' and teachers' reaction to controversial content – students' knowledge of and attitude to population matters Undertake formative evaluation of materials and training designs during their developmental stages. Hold mid-term and final programme evaluations, with local and external consultants.

vant. This *total integration* approach would have required the massive revision of all syllabi and materials. In addition, it was feared that scattered inclusions of population issues might tend to leave students with unrelated information, rather than the comprehensive understanding Programme developers hoped to achieve.

In order to achieve the best balance between their desire to closely integrate population concepts and topics with other dimensions of experience and at the same time to achieve thorough and coherent population-learning, the Programme designers chose to *integrate population education into the curriculum by the way of instructional units* added to the study of relevant topics within the subjects of Social Studies, Science, Health Education, Home Economics and Mathematics at the elementary and secondary levels. To give teachers the more extensive background and mastery that they would require, population education would be introduced into the teacher training curriculum in some cases through a separate course which could be either a general requirement or an elective, supported by the integration population content into existing courses.

Programme Objectives and Activities

Along with these decisions, the Programme's immediate objectives were formulated and stated in the following terms :

"To develop curriculum materials in population education for elementary, secondary and collegiate levels, including a course in teacher-education and a prototype population course in the arts and sciences.

To provide instruction on population education to students of the three target levels by training 187,000 elementary teachers (75 % of the total), 15,600 secondary teachers (20 % of the total), and 360 teacher-training instructors in the country to implement the designed courses.

To provide the necessary basis for the institutionalization of population education in the formal school system in terms of content of approved textbooks, official syllabi for courses and pre-service education of new teachers."

The activities required to achieve these objectives which were the responsibilities of the three major Population Education Programme's Units, i.e. Curriculum Development, Training and Research, are shown in Table 4.

At the time of the Programme's mid-term review, the scope of the Programme was expanded to cover 100 per cent of the teachers in the elementary and secondary schools and to include college instructors of arts and science, vocational instructors and others who were interested in the Programme. This broadened coverage was reflected in new curriculum development activities and in additional Programme objectives to further identify and define the Programme's expanding outreach. The Population Education Programme's additional or amended objectives were formulated as follows :

To provide leadership in the implementation of the population education programme,

To conduct research studies on population matters at the local and national levels.

To conduct a continuous evaluation of the training and curriculum development activities of the programme.

To coordinate population education activities on in-school and out-of-school programmes.

To maintain linkage with local and international agencies involved in population education and related activities.

The following parts of this study detail the nature of curriculum development activities (Part III), teacher training (Part IV) and research and evaluation activities (Part V) which were undertaken by the Population Education Programme to achieve these objectives.

PART III

THE POPULATION EDUCATION PROGRAMME OF THE PHILIPPINES : FROM OBJECTIVES TO ACTIVITIES

INTRODUCTION

The Population Education Programme, which was instituted as a special project in the Department of Education, was responsible for integrating population education into the Philippine curriculum at the primary, secondary and tertiary levels. Beginning in 1972, the Programme initiated extensive and interrelated curriculum development, teacher-training, and research and evaluation activities which, by 1979, had established population education on a permanent basis at all levels of the educational system and also within the non-formal and out-of-school sectors.

The newly appointed staff had the guidance of the general Programme objectives and a plan of activities. A few members of the team had worked with the earlier and comparatively modest in-country population education programmes during the late 1960's and early 1970's, which were then absorbed into the Population Education Programme. All of them were exposed during their short pre-project training course to the articles and literature on population education, largely from the United States, that sought to define this new educational concern and to establish its parameters. Through their implementation of the Population Education Programme, the staff moved population education from the small-scale pilot project to the national level. While defining the concepts to present and selecting the methods to use, the ways to develop materials and to train teachers, they fashioned a definition-in-action which has, in turn, assisted other countries to develop their own population education programmes.

According to its long-range objectives, the Population Education Programme was to contribute, on the one hand, to the objectives of the national population policy, and on the other, to the increased relevance of the educational system, as part of an overall effort to enhance the quality of life of the Filipino people (see Introduction).

These generalized objectives were also implied in the definition of population education formulated by the staff in the early days of the Programme.

"Population education is the process of developing population awareness and understanding of population situations as well as a rational attitude and behavior towards those situations for the attainment of quality of life for the individual, the family, the community, the nation and the world".

However, these generalized objectives did not quite answer the questions : *What* is to be understood ? *Which* attitudes and behaviours are to be promoted ? Programme staff still had to conceptualize first for themselves, and then to others, the specific outcomes to be achieved through the introduction of population education in the school curriculum. Their final determination, which enabled population content to become a vehicle to achieve general objectives of personal enhancement and social responsibility, objectives which the educational system had not yet sufficiently emphasized in its disciplinary orientation (see Section II), will be elaborated in the following examination of the objectives, content and teaching-learning methods of population education.

OBJECTIVES OF POPULATION EDUCATION : A FUSION OF DEMOGRAPHIC AND EDUCATIONAL GOALS

Although the original impetus for the inclusion of population education in the school curriculum had been to provide support for the national family planning programme (1), the educators who staffed the Population Education Programme also were guided by the nation's educational goals, as set forth in the Education Decree of 1972 (2).

In light of these goals, population education was conceptualized as concerned fundamentally with students as future decision-makers. This orientation precluded any element of prescription within population education and established the importance of developing students' human potential for self-guidance and social responsibility. It implied that alternatives, choices and decisions would be emphasized in both the content and methodologies of population education to promote the skills of inquiry and deliberation and the attitudes of concern for the consequences of behaviour and the welfare of others.

---

(1) The President's General Order of 1972 (see Part I, Official Population Policy), shows clearly the Government's expectation to promote the small-family norm in line with the nation's demographic objectives. In fact, in the Development Plan of 1974 - 1977, population education is mentioned as one of the Information-Education-Communication activities of the national family planning programme.

(2) See Part I, Educational Reforms of the 1970's.

It is this type of thinking that was encapsulated in the following general objectives for population education which were formulated by the Programme's staff:

Population education should assist the student to:

1. Acquire knowledge and understanding of the basic concepts of demography and the processes of population change;
2. Develop rational and responsible attitudes and behaviours towards family size and other population matters;
3. Acquire skills in planning and decision-making and utilize them in planning and decision-making on population matters now and later in life; and
4. Improve in ability to learn by participating in classroom activities which employ a variety of teaching strategies with emphasis on the discovery approach and less emphasis on lecture.

Thus, population education was neither to prescribe nor to coerce, but to present population matters as phenomena to be understood, and Programme staff sought to make this educational goal clear to both decision-makers and to the general public. In fact they devoted considerable care in the early days of the Population Education Programme to dispel fears that this educational endeavour might try to direct students' behaviours or denigrate traditional values and practices. To this end, a series of orientation seminars were held for key personnel in the multi-sectoral agencies and in the educational system. Orientations for parents and teachers as community assemblies and meetings also were organized throughout the country. Brochures which explained both the need for and the nature of population education were prepared and widely disseminated to both types of audiences (1). The essence of their messages, summarized in a later publication, stressed respect for individual opinion and decision:

> ...The schools rejected the concept of "population control". The idea behind the term "population control" is opposed to what is considered the proper role of the classroom teacher. Teaching population control implies that the teacher seeks to indoctrinate students into accepting the idea of limiting family size as the only solution to the population problem, without inquiring into other meaningful alternatives... Population education implies an exploration of alternatives. The teacher's attitude is that of a fellow inquirer who has no final and absolute answers to give out. He makes clear from the beginning that all statements or claims to knowledge are to be examined and then accepted or rejected in the open forum of ideas. He does not have the right to force specific interpretations... on the students." (2)

The paramaters of the Population Education Programme's curriculum development task, as established by these general objectives, were to introduce into Philippine education population content, instructional designs and teaching-learning methodologies that would assist students to make informed decisions concerning population matters as well as more general social problems.

CONTENT

The content that was selected for population education essentially followed the *determinants-consequences framework* particularly suited to the emphasis on decision-making that permeated the programme's conceptualization.

"This framework is based on the reasoning... that all population behaviour has its determinants or causes and produces certain effects or consequences. For this framework, the three basic portions of population studies are:

– The population situation or the basic (largely demographic) description of the population behaviour of a society (or even of a family or a community);

– The causes of this situation; and

– Its present and future consequences.

Any population situation - rural-to-urban migration, declining mortality, population growth or decline - can be analysed within this kind of framework. *It enables learners to focus on two basic ways by which their own and their society's population situation may be modified: by altering the elements which are at present causing that situation or by understanding possible future effects of different behaviours and then selecting those which will bring about the kind of future that is preferred*" (3).

Thus, within the determinants-consequences framework, even the basic population data - like the age structure or the differences in population densities between regions - were viewed as descriptions of people's decisions in response to social and economic conditions (which also were the result of choices and decisions), to achieve or express particular goals or values (to which there are a range of possible alternatives). Similarly, students were to understand that the decisions reflected in population processes can have different consequences for individuals, groups and the whole society, depending on the prevailing organization, structure of relationships, values and traditions.

The population education knowledge-base drew upon a wide range of disciplines, in addition to basic demographic information such as sociology, anthropology, economics, political science, psychology, history, geography or natural sciences. Its interdisciplinary information and concepts were derived from these academic areas and also included social psychology, medicine and the health sciences, and then were consolidated and connected through examination of their interrelationships to meet the requirements of the framework adopted by the Programme. More specifically, the *demographic* content included data on the past, present and projected fertility, mortality and migration in the Philippines and the world, the nature of population changes, as well as basic demographic measures and methods and of data collection. The *determinants* of population behaviours, processes and changes dealt with the psychological and socio-cultural factors that tend to influence fertility, migration and mortality, such as beliefs, customs, traditions and practices, as well as relevant features of the social system, like the distribution of economic resources, legislation and development policies. Both the micro- and the macro-level *consequences* of population behaviours were examined ; at the micro-level, emphasis was placed on the effect of family size, on the family's ability to provide for basic needs like health and education ; at the macro-level, emphasis was placed on the more complex relationships between population growth and socio-economic development, the environment and political power

---

(1) *Preparing Tomorrow's Parents Today*. Population Education Program. Department of Education and Culture, Manila, 1973, and *Planning for the Future: Population Education in the Philippines*. Department of Education and Culture, Population Education Program, Manila, 1972.

(2) *Value Clarification on Population Education*. Carmelita L. Villanueva. Population Education Research Utilization Monograph Series 2, Part 2. Philippines, Population Information Division, Population Center Foundation, 1977, page 13.

(3) Unesco. *Population Education: A Contemporary Concern*. Educational Studies and Documents Series No. 28, Paris, Unesco, 1978, page 49.

Two other areas were added to the basic demography-determinants-consequences content of the population education curriculum : *sexuality and human reproduction*, and *planning for the future*. Information on human sexuality and reproduction was viewed as an important complement to the Programme's emphasis on responsible decision-making : "... through sex education, students will not only learn the full exercise of their sexual powers in a mature and responsible manner ; they will also be able to make personally and socially responsible decisions about their fertility behavior" (1). Information on family planning was also included as part of this content area in a number of grades.

While most authorities were agreed on the inclusion of demography, determinants and consequences, there was a certain amount of disagreement on the propriety of including controversial topics such as sexuality and family planning. Although these topics were unquestionably relevant to population education, their inclusion might have generated resentment against the Programme and thereby jeopardized the chance of its acceptance. The Population Education Programme staff, while taking notice of this issue, decided to include tentatively these controversial topics, since human reproduction was to some extent already a part of the regular content of Science and Home Economics and sex education was already being offered in some private Catholic and non-sectarian schools in the country ; it was pointed out that the Catholic bishops of the Philippines, in one of their conferences, had endorsed the concept of family planning as a means of enhancing the welfare of the family. The final content area of population education, planning for the future, was designed to give explicit attention to decision-making, through exercises in planning and the examination of real-life situations involving a conflict between competing interests and values. A more detailed listing of the content of population education is provided in the content outline which was prepared as part of the exercise of integrating population material into the school curriculum (see Figure V).

Figure V : *POPULATION EDUCATION CURRICULUM CONTENT OUTLINE*
TOPICS introduced in Social Studies ; Health, Home Economics, Science and Mathematics

I. DEMOGRAPHY

A. Sources and quality of population data

1. Types of data
    a. Census
    b. Vital statistics
    c. Sample survey

2. Quality of data

B. Basic demographic tools

1. Methods of measuring fertility
2. Methods of measuring mortality
3. Methods of measuring migration
4. Methods of measuring population growth
5. Methods of estimating future populations
6. Age structure

C. Animal and plant population dynamics

1. Plant populations
2. Animal populations
3. Implications for human population dynamics

D. Fertility

1. Fertility behavior of different groups

2. Fertility behavior over time and space
    a. World
    b. Philippines

E. Mortality

1. Mortality behavior over time and space
    a. World
    b. Philippines

2. Immediate causes of death
    a. World
    b. Philippines

F. Migration

1. Types of migration
2. Characteristics of migrants
3. Migration behavior over time and space

---

(1) Ma. Felicitas Arellano-Reyes and Carmelita L. Villanueva. *Introducing Human Sexuality into the Population Education Curriculum.* Population Education Research Utilization, Monograph Series 1, part 3, 1976, Population Information Division, Population Center Foundation, Philippines, page 17.

G. Population change

1. Demographic transition
a. European experience
b. Relevance to developing countries

2. World population growth trends
a. Prior to the 19th century
b. The recent past

3. Philippine population growth trends

4. Population projections

II. DETERMINANTS

A. Fertility

1. The desire for children
a. Motivations in wanting children
b. Motivations in not wanting children
c. Effects of actual family size on desired family size

2. Motivations in not wanting any child

3. Motivations in wanting an only child

4. Family size norm
a. How formed
b. How reinforced
c. How changed

5. Age of marriage
a. Laws regulating age of marriage
b. Customs, traditions and beliefs that encourage early marriage
c. Issues for and against early / late marriage

6. Fecundity and sterility

7. Temporaty voluntary abstinence
a. Definition
b. As means of fertility control
c. Socio-psychological aspects

8. Involuntary abstinence
a. Causes
b. As means of fertility control

9. Divorce, separation, desertion and death of spouse
a. Definitions
b. As means of fertility control
c. Laws, beliefs, mores, and practices

10. Celibacy and non-marriage

11. Contraception and sterilization
a. Definition
b. Beliefs, mores, practices and laws
c. As means of fertility control
1) Different methods of contraception
2) Advantages and disadvantages
3) Family planning programs

12. Abortion and miscarriage

13. Premarital and extramarital relationships

B. Mortality

1. Causes of death
2. Man's attempt to prevent / encourage death
3. Influence of fertility on mortality

C. Migration

1. Causes of migration
a. Push factors
b. Pull factors

D. Theories explaining population change

1. Malthus
2. Demographic transition

III. CONSEQUENCES

A. Effects of rapid population growth (RPG) on economic development

1. Terms (RPG, GNP, GNP per capita, Dependency ratio)
2. Reasons why RPG may be detrimental to economic development
3. Reasons why RPG may promote economic growth

B. Effects of RPG on food production and health

1. Effects of RPG on food production
2. Effects of reduced food production on health
3. Effects of family size, parity and spacing on health

C. Effects of RPG on the educational system

1. Disadvantageous effects
2. Advantageous effects

D. Effects of RPG on other government services

E. Effects of RPG on physical environment and natural resources

1. RPG is one of the many factors which contribute to environmental pollution.
2. RPG accelerates the exhaustion of non-renewable resources.
3. RPG leads to utilization of agricultural and forest land and water areas for human habitation.
4. RPG is one factor in the present destruction of the eco-system.
5. RPG stimulates discovery, invention and utilization of new sources of energy, power and food.

6. RPG stimulates new ways of re-using renewable resources.

F. Effects of population size and RPG on political power

1. Absolute size contributes / does not contribute to political power.
2. RPG contributes / does not contribute to political power.
3. Absolute population size and RPG combined may / may not contribute to political power.

G. Sociological and psychological effects of RPG

1. Derived from RPG alone
2. Derived from overcrowding
3. Man's adaptability

H. Other effects of fertility change

1. On the social, educational, occupational advantages / disadvantages to children of large / small families
2. On the mores, customs and traditions relative to :
   a. Sex behavior patterns in the Philippines and in other countries
   b. Boy-girl relationships

I. Other effects of mortality change

1. On health
2. On social life

J. Other effects of migration

IV. SEXUALITY

A. Sexual development

1. Biological aspects
2. Psychological aspect
3. Sociological aspect
   a. Socio-cultural factors influencing sexual development as well as sexual behavior in later life
   b. Problems and issues relating to sexual conduct

B. Reproduction

1. Nonhuman reproduction
2. Human reproduction
   a. Reproductive anatomy (structure and function)
   b. Reproductive process
   c. Hygiene of the reproductive organs
   d. Disorder and diseases of the reproductive system

C. Sex behavior

1. Over time and space

V. PLANNING FOR THE FUTURE

A. Importance of planning and decision-making

1. Why individuals should plan and make decisions and not leave the future to chance
2. How individual planning affects society

B. How to plan and make decisions

1. Art of planning
2. Making choices on the basis of an ethical hierarchy of priorities

C. Life situations involving planning and decision-making

INSTRUCTIONAL DESIGNS AND TEACHING-LEARNING METHODS

The general objectives of population show clearly a concern not only for *cognitive mastery of knowledge and concepts* but also for student's *behavioural and attitudinal development.* The Programme's emphasis on decision-making skills and attitudes of empathy, tolerance for diversity and concern with the effect of behaviours on others led to a basic orientation for population education, namely that the *way* in which a student learns about population matters may be just as important as *what* he learns about it. And the *way* that students were to learn population content consisted of activities that would achieve the following specific behavioural and attitudinal objectives :

1. *Value clarification*, namely students' ability to examine their own ideas and values and to empathize with and respect the ideas and values of others ; to identify the factors contributing to their own and other's ideas and values ; to question and be questioned about the adequacy of their ideas and values, especially in terms of their consequences for others. (1)
2. *Inquiry*, namely students' skills of problem-recognition, hypothesis formulation and testing, data gathering and reporting, data synthesis and concept formulation. (2)
3. *Planning*, namely students' ability to set goals, identify means to attain these goals, choose between alternatives, implement, evaluate and, if necessary, revise either the choice of means or goals. (3)

To develop these competencies and promote these attitudes, the Population Education Programme employed a *problem-oriented instructional design* and relied heavily on *participatory teaching-learning methodologies*, which together came to be termed "*the discovery approach*" to population education. In the problem-oriented instructional design of population education, mastery of content was connected with personally and socially relevant issues or questions. In some cases, students might first study the determinants and consequences of a population phenomenon and then explore their implications through the examination of a problem demanding a personal decision or solution. In other cases, the problem might come first, and the consideration of the demographic facts and their causes and consequences be part of the process of clarifying its dimensions and alternative solutions. In either case, the problem-orientation implied that the final step of a lesson or a unit would be the formulation and weighing of decisions.

---

(1) *Value Clarification on Population Education, op. cit.*, especially pages 52 - 60 and 103 - 118.

(2) Ma. Felicitas Arellano-Reyes and Carmelita L. Villanueva. *On the Effectiveness of the Discovery Approach as a Teaching Method in Population Education.* Population Education Research Utilization Monograph Series, Number 1, Part 2, Pilippines, Population Center Foundation, 1976, especially pages 15 - 16.

(3) *Value Clarification on Population Education, op. cit.*, especially pages 65 - 67.

The teaching-learning methods of population education promoted active student participation in the instructional process and required them to become *contributors* of their opinions and feelings, *collectors* and *synthesizers* of information, *planners* of ways to achieve their goals, and *evaluators* of their own and each other's points of view and decisions. With these methods, the teacher's role became that of a *guide* : sometimes presenting information, *always* raising questions and new possibilities ; sometimes focusing, synthesizing and clarifying ; and *always* modeling appreciation for differing opinions and diverging values and decisions. This teaching-learning situation was a distinct departure from the prevailing mode of classroom instruction which relied heavily on teacher-instruction and rote learning.

"...precisely because the course aims to help students make responsible decisions, its content has to be treated as if it were controversial, that is, as if there were good reasons for deciding one way or the other, as if every decision had both good and bad implications.

Given this objective and the controversial nature of the subject matter, it is obvious that the teaching method appropriate to population education *cannot* be one in which the teacher rather dictatorialy tells the students that *this* behavior is *the* right one and all others are wrong. Rather, the ideal teaching method should present and evaluate plausible alternatives in terms of the advantages and disadvantages associated with each. And on the basis of this evaluation, a given alternative is either accepted or rejected - with the clear understanding that the right decision for one may be the wrong decision for another." (1)

Some of the newer teaching-learning methods of population education, which were not in common use in the Philippine educational system of the early 1970's, were : role-playing, case studies, brainstorming, springboards, buzz sessions, and interviews and surveys.

Role-playing (in which the students take on the roles of individuals with various points of view confronting a problem or dilemma), was considered one of the Programme's most important teaching-learning methods. It afforded not only the opportunity for the expression of a wide range of opinions and alternatives, but also for the development of "empathy", the process of becoming actively involved in the situations and the concerns of others. One example of a role-playing session will help to indicate its possibilities and its method of implementation.

In the Grade IV population education sub-unit dealing with the effects of migration on population growth, students first studied the patterns of migration in the Philippines, the reasons for migration and the characteristics of migrants. After this preliminary introduction, students explored the meaning and personal relevance of these concepts through their participation in and analysis of three role-playing situations, one of which concerned a student who recently had finished a nursing course in a large, urban university and who was torn between the advice of her friends to remain in the city's hospital and her parents' advice to return to her home town to fill the long-standing vacancy of the nurse in the Rural Health Unit. This situation gave an opportunity for some members of the class to enact the roles of the student, her friends, her parents, the hospital director, etc., and for the others to define the issues raised by the situation prior to its enactment and subsequently, together with the "actors", to examine the nature of the problem, the alternatives, their causes and the consequences of the final choices.

A *case study* (in which students analyze a written presentation of the behaviours and the experiences of a person in a specific problematic situation) had similar objectives to role-playing, and often the two methods were combined in the population education lessons, with the preliminary study of a case forming the basis for subsequent student role-plays.

Springboards helped make students aware of the questions that were posed by events recorded in a document, article, news item or song, poem, map or graph, picture, advertisement - any item taken from the "real" world that raised thought-provoking questions which formed the basis for hypotheses to be subsequently explored and examined by the class. Springboards of news items were used for example in the Grade V population sub-unit on the determinants of family size to provoke discussion of the effect of government policies and social practices on family size.

Role-plays, case studies and springboards all involved an element of *confrontation*. Students were confronted with differences of opinions, beliefs and values that people hold about population issues, and in turn, were stimulated to analyze and clarify their own beliefs and values. Frequently, students were asked to examine possible differences between their own values and those of their parents or of the wider society and then to explore the alternative consequences of each position. An example taken from the first-year high school population education sub-unit dealing with understanding the sex drive, illustrates the inclusion of value-laden or emotional issues in population education. In this case, students were asked to analyze the differences between the views of the following groups towards masturbation, necking and petting : their homes, the church (Catholic, Protestant, Islam, etc.), friends and peers, and society in general, as a preliminary step to establishing their personal positions.

---

(1) *On the Effectiveness of the Discovery Approach as a Teaching Method for Population Education, op. cit.*, page 19.

Other frequently used methods also helped to insure student participation and therefore increase their involvement and their feelings of competence and self-esteem. One of these methods was *brainstorming*, which was a way of promoting the contribution of a wide range of inputs from the members of the class and also of training them to postpone evaluation and judgement until they carefully considered the possible merits of each of the contributions made by their fellow classmates. Brainstorming sessions normally were used to elicit numerous and diverse responses to questions like 'why ?' 'what will happen if... ?', 'what are the reasons for (or against)... ?', 'how can this problem be solved ?'. The essential features of brainstorming sessions were that each member of the class had freedom to express even unconventional or seemingly "useless" ideas, and that no other student (or the teacher) could question the contribution, or express a negative reaction. In successful brainstorming sessions, ideas flowed quickly, and in a short time, each member of the class contributed to an extensive group-generated list of possibilities, which then were examined, clarified, synthesized and, sometimes, eliminated through class consensus.

The *buzz-session* was another method of increasing student participation. For these sessions, the class was broken into small groups, to quickly discuss a particular topic, problem or possibility. Each student's opportunity to contribute his ideas was thereby increased, and the possibility of teacher-dominance lessened. An important feature of the buzz-session method was that the deliberations, findings or decisions of each group were reported to the class as a whole, either verbally, by the group's spokesman, in writing, or through the preparation of a consolidated report by a sub-committee. In one case, a buzz-session concerning the effects of rapid population growth on a community was used as an introductory activity in the Grade VI population education sub-unit dealing with the consequences of rapid population growth on community health. The use of this method to introduce the sub-unit was an effective way of stimulating students' interest in a subsequent search for information to test the extent to which their original ideas and suggestions were supported by facts.

Interviews and surveys were methods that made students active participants in the collection of information about each other, their families, and various aspects of their community life. By helping to design an interview or survey, students developed skill in clarifying questions and in determining the information needed to resolve them. They thus became better able to see the complexity or multiple dimensions of even a seemingly straightforward issue. By conducting interviews or administering questionnaires, students developed poise, self-assurance and the skills of interacting with members of their communities. In the process of synthesizing this information, students developed the skills of organizing, summarizing, finding relationships and drawing conclusions - all of which were basic to problem-solving and decision-making. One example of the use of surveys within population education is provided by the first-year high school sub-unit dealing with the effects of rapid population growth on food production, where students surveyed local markets to find out the foodstuffs available within their communities, their quantities and their original sources.

In the population education sub-units that were prepared for integration into science, extensive use was made of methods that required students to undertake the *process* of scientific inquiry and thereby develop the skills of observation, description and measurement, comparison and classification, prediction and inference, experimentation and decision.

THE INTEGRATION OF POPULATION CONTENT

The decision to introduce population content into the curriculum through the insertion of sub-units into appropriate topics in Social Studies, Science, Health Education, Home Economics and Mathematics (see Part II) involved the staff of the Population Education Programme in a novel and complex curriculum development activity which had not been previously undertaken in the Philippines educational system.

In order to determine the scope and sequence of the population education content, the Programme's curriculum developers first of all had to determine the learning objectives, the content and the methods that would be *appropriate for learners* at the different levels of the educational system. This task itself was difficult, given the lack of available information concerning students' knowledge of and attitudes towards population matters and the dearth of previous experience and programmes which could serve as models. But the task was complicated by the fact that there also was need to find *appropriate points in the syllabi* of other subjects for integrating the population content, where the new population material and activities would fit naturally and complement the objectives, content and methods of the major instructional unit. Similarly, they had to design the sequence of the population sub-units in a way that they would *build upon antecedent learning and skills and reinforce previous learning within both population education and the subject* into which the sub-units would be integrated. And finally, they had to ensure that despite the distribution of the population sub-units into five different subjects, there would be a *coherence* to the population learnings at each grade level, and from one grade level to the next, in order to ensure unified learning progressively increasing in complexity and the achievement of the goals of population education.

The successful formulation of an integrated design for the inclusion of population education into the curriculum was a notable achievement, both within the field of population education and for Philippine education. The topics of the twenty-six population education sub-units for the elementary level and fifteen population education sub-units for the secondary level and their subjects of integration are presented in their entirety in Appendix I. The appropriateness of the insertion of the population sub-unit to complement and enrich the topic under consideration can be presented with only a few examples. The population education sub-unit on the family, which deals with family size, composition, functions and the relation of family size to family needs was integrated into the Grade I Social Studies unit, *The Family*, which had a different but related emphasis. A population education sub-unit dealing with man's adaptation to the environment was inserted in the Grade V Science unit *Animal Adaptation to the Environment*, thereby broadening students' understanding of the process of adaptation. A population education sub-unit concerning the human reproductive process which was inserted into the second-year high school Home Economics unit *Human Development and the Family* provided additional details concerning the physical aspects of development.

When designing the placement of the population sub-units, care also was taken to ensure a fit between the methodologies of the subjects and the population sub-unit. For instance, case studies and role-playing were used most extensively in Social Studies, since they were felt to provide an immediacy to the concepts learned in the subject. Since Mathematics stressed computation and the application of mathematical concepts to the solution of problems, the population sub-units presented problems utilizing population data, situations and measures to give students additional practice in problem-solving and computation. Similarly, the population sub-units for Science afforded additional practice in the process of scientific inquiry.

CURRICULUM DEVELOPMENT ACTIVITIES

During the Programme's initial six months, the forty-one sub-units were prepared in preliminary form, one for each of the population education sub-units in the curriculum. The specific content and instructional design for each sub-unit were decided by the Programme's staff in consultation with the foreign consultant and the Programme Officer for Curriculum Development. Although the curriculum writers worked within specific subject sub-groups, the members of all sub-groups participated in the decisions about each sub-unit to ensure better articulation between subject areas and grade levels and to avoid unnecessary duplication. Each sub-unit also was reviewed and amended by an inter-disciplinary select committee, and then underwent further revision on the basis of feedback obtained from teachers and students (see following sub-section).

In addition to these sub-units for the elementary and secondary levels, three *separate* population education courses were designed by the programme : for the secondary level, for teacher-training colleges and for college undergraduates in arts and sciences. The departure from the "unit" approach at the secondary level was occasioned by the introduction of the new curriculum in 1973 - 74, which gave each student the opportunity to choose one elective course each year. The introduction of the course *Population Education for Better Family Living*, dealing with the population situation, the causes and effects of population growth, human sexuality and responsible parenthood, which students could elect to take in either their third or fourth years, was seen as a contribution to the aims of the new curriculum of preparing students for the vocational and social demands of adulthood. This single course, far from duplicating the population education sub-units was felt to supplement and strengthen earlier learnings.

The three-unit, one-semester course designed for pre-service teacher training covered the topics of population dynamics, human sexuality, population policies and programmes, and the teaching practices of population education in the school. The design of this course was preceeded by a baseline survey of knowledge and attitudes on population matters among teacher education students which was undertaken in several teacher-training colleges and universities. The use of a separate course was considered appropriate to give the depth of exposure required for future teachers. To reinforce and extend their understanding of population matters, population concepts were introduced throughout the pre-service teacher education curriculum, wherever natural integration was possible. This course served as a prototype for the population education course subsequently designed by the Programme for college students in arts and sciences.

Curriculum Materials : Teacher's Guides and Reference Materials

The actual process of introducing population education into the schools was effected by both in-service teacher training (see Section IV) and the distribution to all concerned teachers of a variety of guides, references and instructional materials. In the beginning, priority was in fact given to the preparation of teacher's guides and background materials.

The content of the *teacher's guides* which were prepared for each population sub-unit followed a similar pattern : an explanatory overview of the population sub-unit, as well as its relationship to the subject unit where it would be integrated, a detailed description of the objectives, content, activities and evaluation proceedures of the sub-unit, together with appendices of relevant illustrations and articles, and detailed plans of each daily lesson within the sub-unit.

These teacher's guides initially were written in English. When the bilingual policy of using Filipino as the medium of instruction for some subjects and English as the medium of instruction for others was adopted by the Department of Education and Culture in 1973, the guides for the sub-units in Social Studies, Health and Home Economics were translated into Filipino.

To further assist teachers to understand the content and methods of this new educational area, a compendium of relevant literature and some new materials written by the programme staff, entitled *Background Information for*

Teachers, was prepared for distribution to all teachers of population education sub-units. This reference book was intented to supplement the teacher training programme by providing additional information about population matters and the use of a problem-oriented "discovery approach" to learning.

Guides were also prepared for the separate population education courses at the secondary and the tertiary levels. For the teacher-training colleges, the programme prepared a supplementary *reference work* containing materials written by outside specialists and programme staff. Interest in population education and appreciation of the value of the reference book was sufficient to motivate instructors and students at the teacher-training colleges to offer to pay for the publication costs, when it was found that the programme lacked funds for large-scale printing and distribution.

All teacher's guides and reference materials underwent a two-stage process of evaluation and revision. They were first appraised by students and specialists from a variety of disciplines, and preliminary revisions were made on the basis of their comments. They were then field-tested throughout the 1973 - 1974 school year by selected teachers who already had undergone in-service training. On the basis of teachers' feedback, which was obtained through a questionnaire, the teacher's guides and reference materials were again revised and submitted for further refinement to a technical committee of programme staff, local and foreign consultants. In several cases the teachers who had field-tested the materials participated in their revision. Although they have been distributed throughout the educational system, these materials are scheduled for continuous periodic revisions to incorporate up-dated information, new ideas from population education programmes in other countries, feedback from teachers and students, and the findings of research undertaken by the Programme itself.

To further adapt the population education sub-units to the needs, culture and conditions of the Muslim population, curriculum development workshops were held in the summers of 1977 and 1978 to revise the teacher's guides for the population sub-units for the elementary and secondary levels. Workshop participants included Muslim teachers, administrators and supervisors. During both workshops, no changes were made in the scope and sequence of the population education content ; however, to make the guides more relevant and useful, Christian names were replaced by Muslim names, and new content was introduced consisting of data, stories, situations, illustrations and activities that better reflected the indigenous Muslim culture and used locally available resources. Evaluation activities were improved and expanded, and articles on Muslim culture and religion were appended to the guides for several sub-units.

The *National Bibliography of Population Education* (1), a topical annotated compilation of materials on population education available throughout the country, was prepared by the Programme as a reference tool, which is scheduled to be periodically up-dated, for researchers, administrators, planners, policy-makers, practitioners and students involved in this relatively new field.

Curriculum Materials : Instructional Aids

The first teaching materials prepared by the Programme consisted of a set of nine wall charts illustrating concepts such as age structure, completed family size, burden of dependency, estimated rates of birth, death and natural increase in the Philippines, and also the male and female reproductive systems. Video tapes and slides, showing the different Programme activities and teaching-learning situations were also prepared for use in teachertraining.

The Programme's efforts were then directed to the development of *materials for students'* use which took the form of reference booklets, and self-instructional units dealing with the family, population, migration and the effects of rapid population growth on the community. Four pupil reference booklets were prepared for the elementary level. For the secondary level, materials dealing with the demographic transition and population change, urbanization, rapid population growth and economic development, socio-psychological effects of rapid population growth and economic development, and responsible parenthood were assembled in one reference book. All reference materials for pupils were written in Filipino and were pre-tested, evaluated for suitability and level of difficulty, and revised prior to large-scale printing and distribution.

With Unesco assistance, the Programme undertook the preparation of self-instructional materials in the form of self-learning units for the use of students in their final year of elementary school, to help them consolidate and integrate their earlier population education learnings. The eight self-learning units, which primarily focused on the causes and consequences of population growth, and accompanying teacher's manual were prepared by a selected group of teachers and Programme staff. These materials were pre-tested in several regions of the country and among students identified as slow, average and fast. Teachers were given a pre-test guideline, which included a questionnaire and an observation instrument, and the self-learning units were revised on the basis of the information obtained from these sources before publication.

The distribution of both the pupil's reference books and the self-learning units was on limited scale, since it was felt that it was not feasible to institute a system whereby schools, teachers or pupils at the elementary and secondary levels would pay for these materials.

Additional curriculum development activities have been jointly undertaken by the Programme and various non-formal and out-of-school organizations to extend population education to these sectors (see Part IV).

---

(1) *Strategies for Coordinating Programs, Issues in Evaluating Programs, Communication Approaches in Population Education, Program Planning, Profiles of the Filipino Youth.* Abstract-Bibliography Series 2, Parts 1 - 5, Research Utilization Project for Out-of-School Population Education and the University of the Philippines, Population Institute Library, The Information Division, Population Center Foundation, Philippines.

The extensive curriculum development activities of the Population Education Programme are indicated by the following list of some of the materials prepared during the six years of Programme implementation. (See Annex 2 for complete listing).

Elementary and Secondary Materials

- Twenty-six teacher's guides for population education sub-units in Social Studies, Health, Mathematics and Home Economics at the elementary level.

- A Filipino translation of the guides in Social Studies, Health and Home Economics.

- Teacher's guides for population education sub-units in Social Studies, Science, Health, Mathematics and Home Economics at the secondary level.

- Reference volume for teachers with background material concerning population matters and population eduction entitled *Background Information for Teachers.*

- Teacher's guide for an elective course Population Education for Better Family Living with Supporting Instructional Materials for the 3rd or 4th year of secondary school.

- Eight Self-learning units in demography-determinants-consequences for students in their final year of elementary school.

- Student reference materials for elementary and secondary levels.

- Nine wall charts illustrating age structure, completed family size, burden of dependency, estimated rates of birth, death and natural increase, and the male and female reproductive system.

Tertiary Materials

- Teacher's Guide for a three-unit one-semester course in population education at teacher-training colleges.

- Reference volume for instructors and students at teacher-training colleges, providing background information in population dynamics, human sexuality, population policies and programmes of population education in the school.

- Prototype curriculum guides for population education at the college level in arts and sciences.

- Three course guides for the arts and sciences.

Non-Formal Materials

- Two population readers for out-of-school youth

PART IV

TEACHER TRAINING FOR POPULATION EDUCATION

The major thrust of introducing population education into the schools was undertaken by the Population Education Programme's Teacher Training Unit, which between 1972 and 1977, provided in-service training in population education for 261,420, or 76 per cent, of the elementary and secondary school personnel and trained tertiary-level instructors from teacher education colleges. The importance of teacher training, which derived from the novelty of the content, approaches and methods of population education and the need to clarify its goals and objectives is underscored in the following statement taken from the handbook prepared by the programme :

"The preparation of teachers who will teach population education is a "must" if the program is to succeed. They occupy a pivotal position in the system since it is their direct responsibility to implement the program in the classroom. For the teachers already in the system, who will be involved in the innovation, it is essential that they engage in seminars, institutes, workshops or conferences so they will have the needed knowledge background in population and population education as well as skills in the effective use of materials in the subject. Similar pre-service training of this nature should be given those who are studying to be teachers." (1)

IN-SERVICE TEACHER-TRAINING

The original target of the in-service teacher-training programme was to train all teachers at the elementary, secondary and tertiary levels who would be responsible for population education sub-units or courses. This meant that the programme had to design and implement a training scheme to reach 187,000 elementary school teachers (75 per cent of the total), 15,600 secondary school teachers (20 per cent of the total) and 360 training-college instructors. A two-tiered training scheme was organized which used divisional supervisors as trainers of the teachers, principals and supervisors within each district. The supervisory personnel were trained for five weeks at the national level by the Population Education Programme's training staff to prepare them to lead the one-week district-level in-service training courses for the school personnel.

A critical factor in the successful introduction of population education throughout the school system was the enthusiasm and competence of the nationally trained Supervisory Training Teams (STTs). The importance of developing an understanding of population matters and competence in the process skills of classroom instruction among this group, who would introduce population education to the nation's teachers, is shown in the careful design of the five-week course for the Supervisory Trainers by the Programme's Training Unit, the heads of the Curriculum Development and Research Units and the foreign consultant. The general objectives of the course included :

To provide participants with an introductory knowledge of the population situation at the micro- and macro-levels, and of population education. Specifically, it intends to introduce the participants to demographic processes, to help them understand the implications of demographic trends, and to explore alternative courses open to them as individuals and as members of society.

The specific objectives of the training indicated that the Supervisory Trainers were expected to develop competence in the examination of the interrelated determinants and consequences of population change, problem-analysis and problem-solving, and value clarification and planning. Training procedures combined the presentation of content with exercises and activities, to enable these future trainers to first put into practice what they would eventually teach.

Equally careful attention was devoted to the design of the one-week training course for the massive group of elementary and secondary school teachers and principals who were the targets of the in-service training programme. This course was intended to achieve the following general and specific objectives :

General Objectives :

Develop basic knowledge and understanding on population and population-related matters as well as population education with the view of developing the readiness and competence in teaching population education in the different grade levels of the school system.

---

(1) Population Education Program, Department of Education and Culture, *Planning for the Future : Population Education in the Philippines*, Republic of the Philippines, Manila, 1972, pages 11 - 12.

Specific Objectives :

1. To enable teachers to understand the population situation at the micro- and macro-levels ;
2. To assist them to gain insight into the *why*, the *what* and the *how* of population education ;
3. To develop their competence in the use of the discovery approach in teaching and such techniques as group discussion, confrontation, role-playing, etc. ;
4. To enable them to utilize the prepared curriculum materials in population education correctly and efficiently.

The development of this in-service training course demanded close collaboration between all three units of the Population Education Programme. The course and its accompanying Training Manual which were prepared by the Programme's training Unit with the assistance of the foreign consultant, were twice pilot-tested in six geographically diverse school divisions and revised by the Programme's staff and selected trainers before their finalization. The contents of the *Training Manual*, which was provided to all Supervisory Training Teams, included : the rationale for the in-service teacher-training programme and the training scheme, materials and strategies ; detailed plans for each of the fourteen lessons of the five-day training course ; and general background information concerning population matters, advice for trainers and basic guidelines for conducting the training programme.

STRATEGIES FOR IN-SERVICE TEACHER-TRAINING

The two-tiered, hierarchical training scheme which was used by the Population Education Programme from 1972 (see Figure VI) had covered only 54,264 of the originally targeted 187,000 elementary school teachers by 1975, and the training of secondary school teachers had started only in July of that year (1). As a result of the slow pace of training implementation, some gaps and discontinuities marked the early introduction of population education into the schools. Although the Programme met its target and trained all supervisory personnel, many of them were not able to implement the in-service training because of transfers and retirements.

In view of the shortcomings of the hierarchial strategy, the Programme's Training Unit decided that there was a need to restructure its training scheme and accordingly convened a series of brainstorming sessions, attended by seventeen superintendents from school districts in various parts of the country.

In order to accelerate training and to reach all targeted teachers by 1977, the group proposed a restructured training scheme which stipulated that :

"Instead of Supervisory Training Teams directly training school teachers, district supervisors and elementary school principals, secondary school principals and department heads were to step in as "middle level trainers" who would handle the training of classroom teachers in their respective elementary and secondary schools". (2)

This revised training scheme, which was pilot-tested by the superintendents in their school divisions between January and March 1977, broadened the base of in-service teacher trainers and utilized the group of Supervisory Trainers to conduct three-day orientation seminars for district supervisors and elementary school principals who had already attended an in-service training course, and a five-day training course for supervisors and principals, particularly at the secondary level, who had not yet been exposed to in-service training. In addition, according to the Revised Training Scheme, which was officially adopted by the Programme beginning with the 1976 - 1977 school year, the training target was expanded to include all elementary and secondary school teachers. This expansion in the supply of trainers speeded the spread of population education to school administrators and teachers, so that, by the end of 1977, the numbers trained under both schemes covered 79.22 per cent of the nation's elementary school teachers, 65.75 per cent of all secondary school teachers and 67.49 per cent of the administrators at both levels (3).

To further accelerate the training of teachers and "as part of the program's effort to explore alternative schemes and innovations in training in order to generate training models in population education" (4), the Population Education Programme also adopted the use of *self-instructional modules* as an alternative in-service training strategy. The modules were envisioned as meeting the needs of teachers who could not participate in face-to-face training like those in isolated villages and island municipalities, teachers in the private schools who could not leave their classes for a prolonged period of time, and newly-employed teachers. Both the content, which covered the material in the one-week in-service course, and the system of administering these modules were carefully tested with the assistance of the East-West Communication Institute, since there had been little previous use of this training strategy within the Philippine educational system.

In 1976, 540 elementary school teachers from five school divisions tested the use of twelve self-instructional modules in population education, using three different management schemes, namely : independent study by teachers ; monitored study, assisted by a trained elementary school principal ; and monitored study, assisted by a trained district supervisor. An accompanying *Module Manager's Guide* was also developed by the Programme and tested by the officials involved in the pilot study. The significant difference between teachers' pre- and post-test performance, and their feedback to the Programme's staff, indicated that the modules would provide an effective and acceptable alternative to face-to-face training.

The 1977 nation-wide implementation of the modular

---

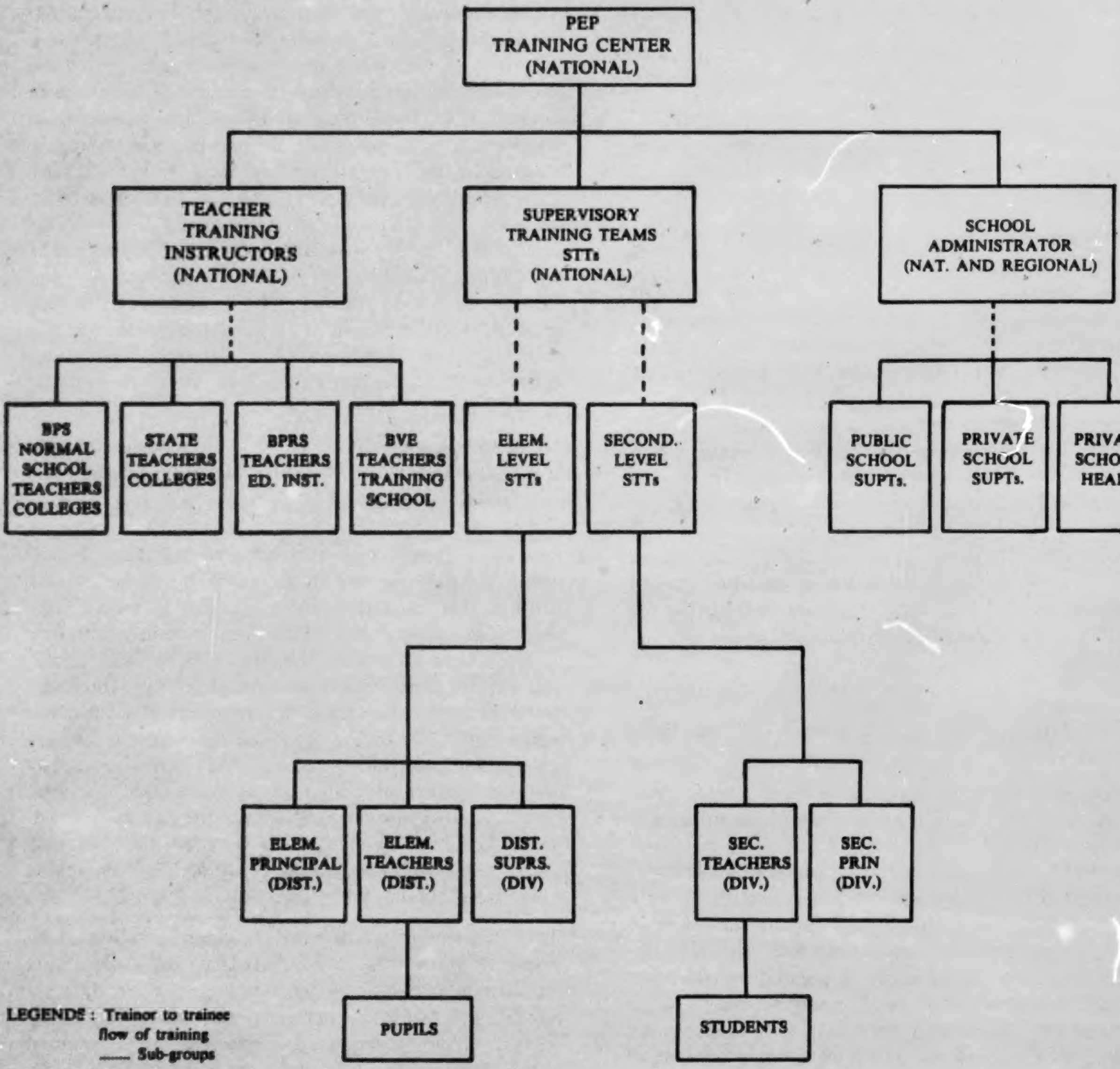
(1) Population Education Program, *Annual Report*, 1975 - 1976.

(2) *The Population Education Program : A Terminal Report, July 1972-January 1979*. Manila, Ministry of Education and Culture, January 1979, page 18.

(3) *The Population Education Program : A Terminal Report, op. cit.*, page 21.

(4) *Ibid.*, page 22.

Figure VI : *POPULATION EDUCATION PROGRAM (PEP) - TRAINING SCHEME*


PEP
TRAINING CENTER
(NATIONAL)
TEACHER
TRAINING
INSTRUCTORS
(NATIONAL)
SUPERVISORY
TRAINING TEAMS
STTs
(NATIONAL)
SCHOOL
ADMINISTRATOR
(NAT. AND REGIONAL)
BPS
NORMAL
SCHOOL
TEACHERS
COLLEGES
STATE
TEACHERS
COLLEGES
BPRS
TEACHERS
ED. INST.
BVE
TEACHERS
TRAINING
SCHOOL
ELEM.
LEVEL
STTs
SECOND.
LEVEL
STTs
PUBLIC
SCHOOL
SUPTs.
PRIVATE
SCHOOL
SUPTs.
PRIVATE
SCHOOL
HEADS
ELEM.
PRINCIPAL
(DIST.)
ELEM.
TEACHERS
(DIST.)
DIST.
SUPRS.
(DIV)
SEC.
TEACHERS
(DIV.)
SEC.
PRIN
(DIV.)
PUPILS
STUDENTS
LEGENDS : Trainor to trainee
flow of training
—— Sub-groups

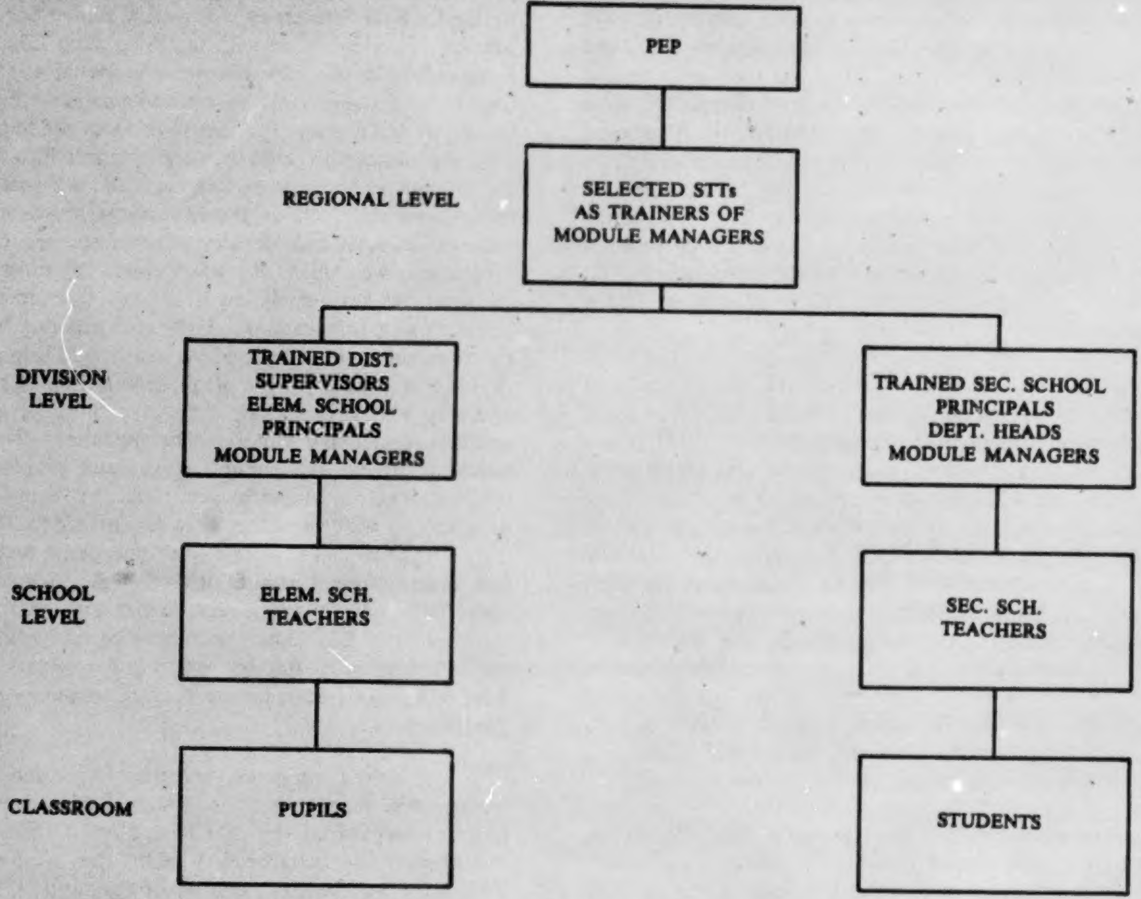
approach necessitated the training of module managers through a series of two-day orientation seminars which were held in thirteen regions in 1978. Participants, who included members of the Supervisory Training Teams, discussed the operationalization of the modular approach, reviewed the twelve modules and the Module Manager's Guide, and prepared a training model, including the schedule and flow of materials which was subsequently implemented in an expanding number of school divisions (see Figure VII).

The modules developed for in-service training became an invaluable resource for pre-service teacher training as well. A study conducted by the Programme in three teacher education colleges compared the relative effectiveness of the modular approach and teacher-conducted instruction. The results of this study underscored the potential value of introducing the modular approach in teacher education.

PRE-SERVICE TEACHER-TRAINING

As originally designed, population education was to be introduced into the pre-service training of teachers through five-week summer training courses for 360 instructors, representing all the nation's teacher education colleges. These training courses were similar in purpose to the course designed for the Supervisory Training Teams, and utilized the Course Guide for Population Education in Teacher Training Colleges and the supplementary Resource Book which had been developed by the Programme's Curriculum Development Unit (see Part III).

Figure VII : *MODULAR APPROACH*


PEP
REGIONAL LEVEL
SELECTED STTs AS TRAINERS OF MODULE MANAGERS
DIVISION LEVEL
TRAINED DIST. SUPERVISORS ELEM. SCHOOL PRINCIPALS MODULE MANAGERS
TRAINED SEC. SCHOOL PRINCIPALS DEPT. HEADS MODULE MANAGERS
SCHOOL LEVEL
ELEM. SCH. TEACHERS
SEC. SCH. TEACHERS
CLASSROOM
PUPILS
STUDENTS

The implementation of population education in pre-service teacher training also encountered a number of difficulties because of the magnitude of the tasks involved in institutionalizing the population education course. Consequently, the Population Education Programme undertook to promote the awareness of population education among administrators and faculty at colleges of education and designed an alternative training scheme for college instructors. A one-day orientation seminar for college administrators was used to discuss plans for the full implementation of population education in teacher education institutes. As a result of the interest generated by this seminar, the three-unit, one-semester course in population education was introduced into the teacher training curricula of most participating institutions. Awareness of population education in the teachers' colleges was also promoted by a series of three-day seminars, conducted by the Programme and participating colleges, in collaboration with the Mobile Team in Population Education of the Unesco Regional Office for Asia, Bangkok.

To accelerate the training of instructors for these courses, the Population Education Programme switched to a scheme whereby teachers would be trained in population education at summer institutes offered by two teacher education institutions and would earn graduate credits for their attendance. This scheme had more appeal than the original programme approach and also promoted the institutionalization of these courses as regular cognate courses within the curricula of the participating teacher education colleges.

THE EXPANSION OF TRAINING

Having designed and implemented in-service and pre-service teacher training to introduce population education in the nations's primary and secondary schools, the Population Education Programme turned its attention to a widening network of target groups. One of these groups was the students attending short-term courses in the nation's *vocational schools*, most of whom had not had the benefit of any previous exposure to population education. Accordingly, the Population Education Programme developed a training programme for teachers of vocational secondary and post-secondary schools, in consultation with officials in the regional offices concerned with vocational education. Four three-week workshops were held in order to "develop awareness and a working knowledge of the objectives, activities, components and conceptual framework of the population education", (1) with the expectation that participants would introduce population education to the other staff in their institutions as well as to their students. The first two weeks of the training programme provided participants with background knowledge of the content of population education and the process of value-clarification. The third week was used for practical activities, which included: peer teaching and the study of Programme materials and the development by participants of their own course syllabi in population education. The outputs of these seminars were: enrichment materials in population education for integration in existing vocational courses such as agriculture, fisheries, arts and trades, home industries and home extension courses for girls; training programmes for other teachers; and follow-up schemes for providing the Population Education Programme with feedback on the introduction of population education within vocational institutions.

---

(1) *Population Education Program, A Terminal Report. op. cit.*, page 24.

Training programmes in population education were further diversified through the establishment of four regional centres of population education in 1976 - 1977, in line with the administrative reorganization and decentralization of the educational system which was one of the educational reforms of the 1970's. These centres, located at the University of Northern Philippines, the Bicol University, the West Visayas State College and the Leyte State College, in four different regions of the country conducted training programmes for faculty members of colleges and universities, youth leaders and field workers of government and non-government agencies. They also understood research to assess the training needs of these new target groups and to develop appropriate supporting materials for each of the training programmes.

As a result of the activities of the regional training centres, there has been a rapid spread in the institutionalization of population education at the tertiary level as well as within non-formal and out-of-school education starting with a graduate training programme in population education at the University of the Philippines for the staff of these regional centres (through Population Education Programme fellowships) and continuing with the establishment of additional training programmes at the Population Center Foundation.

At the tertiary level, a unique strategy for introducing population education to college students was developed by De La Salle University, a private Catholic School in Manila, in collaboration with the Population Education Programme. In this experimental non-formal approach, four basic training modules on contemporary Filipino family life and population issues were developed to train a core of students who could then organize activities for the dissemination of population awareness and information to fellow students, such as films, essay writing contests, lectures, forums and debates. The objectives of the programme were *inter alia* to establish in students an awareness of key population issues and their economic and ecological implications; clarify contemporary human values regarding marriage and the family, and help young men and women develop a better appreciation of human sexuality in its varied aspects: psychological, moral, spiritual, social and cultural. The modules were field-tested in private and public colleges and subsequently revised. The enthusiasm generated by non-formal approach, in which students were responsible for designing an instructional "package" for their peers, prompted five other national institutions of higher learning to replicate it in the following year. Also at the tertiary level, the Population Education Programme became one of the accredited agencies through which college youth could meet their requirements for the Youth Community Action Programme.

Efforts to extend *population education to the non-formal sector* were supported by a National Planning Conference, organized by the Population Education Programme, in collaboration with the Non-Formal Education Office of the Ministry and Unesco. Participants from various agencies identified the needs and problems, and formulated the objectives and an overall framework of activities to strengthen non-formal programmes of population education throughout the nation. In this connection, the Population Education Programme also prepared an illustrated factual reader and a series of short stories for non-formal education dealing with family welfare, socio-economic conditions and family size.

PART V

RESEARCH AND DISSEMINATION OF INFORMATION

In the development of population education sub-units and courses, curriculum materials and training designs, extensive use was made of research findings and the feedback of experts, educational personnel and students ; at the same time, equally extensive efforts were made to create awareness at all levels of the objectives and approaches of this new educational endeavour. The strong links established by the Population Education Programme with the wider educational and social milieux have enriched its activities and increased its effectiveness by creating a supporting "climate of opinion" for population education within the educational system, the community and the family. This section presents these two dimensions of the Population Education Programme, namely the flow of information *to* the Programme through research and formative evaluation and *from* the Programme through dissemination activities.

RESEARCH

At various stages of the Programme's development, studies were undertaken to assist in the determination of content ; to better understand the targets of population education, the nation's youth, and its agents, the teachers ; to measure its educational effectiveness ; and to provide guidance in the introduction of population education to non-formal educational channels. The following themes or questions were the main topics of investigation :

–An Analysis of Population Content of Current Textbooks in the Philippine Public Elementary and Secondary Schools

–Knowledge and Attitudes of Prospective Teachers to Population Matters

–Reactions of Parents and Teachers Toward Certain Controversial Population Content

–Family Size Preference Among Filipino Adolescents

–Family Size Preference Among Filipino Teachers

–How Children Develop the Concept of Family Size

–Population Learning Among Filipino Youth

–Students' Knowledge and Attitudes on Population Matters in Selected Schools

–Students' Knowledge and Attitudes on Population Matters in Teacher-Training Institutions

–Performance of Trained and Untrained Elementary Teachers in Population Education

–Case Study of Out-of-School Youths and Adults

–Feasibility of Extending Population Education to the Out-of-School Sector.

The *Analysis of Population Content of Current Texbooks*, the first study undertaken by the Programme's Research Unit, was a "diagnostic study", i.e. the examination of the extent and treatment of population matters and human sexuality within all elementary and secondary texts. By showing that population content counted for only 2.1 per cent of the material in the nation's textbooks, the study helped to confirm the need for more attention to population issues in the curriculum. The study also pointed to the possibilities of linkages with existing material and indicated where additions and amplifications were required. In addition, it contributed to the formation of the scope and sequence of the population sub-units (see Part III of the present publication), by identifying the topics in the syllabi of Social Studies, Science, Health Science, Home Economics and Mathematics that might serve as natural points for the integration of population content. A somewhat similar purpose was served at the tertiary level by the baseline study of the *Knowledge and Attitudes of Students in Teacher Training Colleges* which helped to determine the content of the population education course designed by the Programme for inclusion in the teacher education curriculum.

The *Study of the Reactions to Controversial Content* was undertaken to measure the extent of opposition among parents and teachers to controversial aspects of the material dealing with human sexuality and reproduction (1) and to solicit their ideas regarding the appropriate level for the introduction of this content. By organizing assemblies of teachers and parents in all regions of the country, the Programme was able to tap the opinions of a large, broadly based sample. Strong support for the inclusion of all aspects of the content was expressed by the 6,644 teachers and parents who attended these forums, with about 90 per cent favouring the inclusion of sexual terminology and illustrations of the reproductive system and an equally high percentage favouring discussions of family size norms and the inclusion of information about contraceptive devices (See Part III).

---

(1) Controversial content included naming sexual terminologies ; showing pictures of sexual organs and the process of fertilization ; showing and discussing the uses, advantages and disadvantages of various contraceptive devices ; discussions of family size ; and discussions of abortion.

A national exploratory study conducted by the Programme on *Family Size Preference Among Filipino Adolescents* was undertaken to provide information concerning the ideas and values related to family size among in- and out-of-school, rural and urban adolescents, and the various factors that contributed to their formation. This survey of approximately 4,500 adolescents between 11 and 16 years of age showed that a majority of them had given thought to questions of family size and that they had been influenced by both parents and peers. Some of the specific material collected in this study contributed to the content of case studies and role-plays and formed the basis of the material used for the examination and clarification of students' values. An important outgrowth of the study for the long-term development of the Programme was its confirmation of the fact that the effectiveness of an in-school population programme would depend to some extent on the prevailing attitudes and beliefs within the wider socializing network and its recommendation that "the population education programme needs to initiate, either directly or indirectly, population socialization programmes in the larger community, starting with parents and out-of-school youth, in order to maximize its effect on the youth in the formal educational system" (1). *Teachers' views* concerning questions related to *family size* were obtained through a study of randomly selected participants in the one-week in-service population education training programmes in eleven regions of the country.

Two anthropological studies were undertaken by the Programme to further explore the formation of concepts, attitudes and values related to population issues. In the first, *How Children Develop the Concept of Family Size*, extensive observations and in-depth interviews related to the formation of ideas about family size and human development were obtained over a ten-month period by twelve teacher-researchers in different linguistic regions. The second, *Population Learning Among Filipino Youth*, undertaken for a two-year period through the funding of the Ford Foundation, investigated the practices, beliefs and attitudes relating to birth, adolescence, courtship, marriage and death among samples of 12 and 17-year-old youths from twenty-four communities in different ethnolinguistic groups. Specially trained teacher-researchers were used as recorders for this study as well. It provided information for eight monographs, *Some Philippine Beliefs and Practices Related to Fertility*, which were intended to assist curriculum writers at the local level develop materials for teachers and pupils suited to local needs and cultures.

The Programme also undertook several small-scale studies to measure the effectiveness of its educational materials. The first, at the *elementary* level, used pre- and post-test measures of *knowledge-gain and attitude change* with controls provided by students using population education materials developed by the Philippine Wesleyan College. The findings indicated the general effectiveness of both sets of materials. The second, at the *teacher training level*, also used a pre-, post-test design to measure the educational effectiveness of the course in population education which was being pilot-tested for inclusion in curricula of teacher-training colleges. The findings confirmed the effectiveness of the pilot course in terms of students' *knowledge and attitudes*, with mean differences in favour of the post-test significant at the 1 per cent level. In a third study, achievement tests were administered to elementary school pupils who had been taught population education by *trained and untrained teachers*, in order to determine the effectiveness of the teacher's guides which had been developed by the Programme and to obtain preliminary indications of the viability of self-instruction as a strategy for in-service teacher training (see Part IV). The satisfactory performance of students taught by untrained teachers helped the Programme to adopt the use of self-instructional modules as an alternative to face-to-face training for teachers.

As part of the Programme's efforts to extend population education beyond the formal educational system, two studies were undertaken to provide baseline information for the development of general strategies and specific materials to institutionalize population education for out-of-school youth : *A Case Study of Out-of-School Youths and Adults* and a *Feasibility Study on Non-Formal Education Pilot Centres*, which collected data on these centres' structures, objectives, target audiences, curricula and evaluation activities, and linkages with other organizations.

FORMATIVE EVALUATION

The development of population education in the Philippines has been - and is intended to continue to be - an *on-going dynamic process* in which curriculum development, teacher training and research form interrelated and mutually reinforcing components of a unified strategy. Sub-units, courses and materials designed by the Curriculum Development Unit have been examined and revised through feedback from teacher-training activities and field-testing, and further amended and improved through follow-up activities which have included field visits, surveys, workshops, and conferences.

In previous sections, the testing of population education sub-units, courses and training designs during their developmental stage has been described as a process that generally included : review by subject specialists, initial trial and feedback, revision, second trial and feedback, reformulation and final revision by these subject specialists. Throughout this process, the Programme elicited the participation of scholars, supervisors and teachers. Specialists in content areas such as demography, social sciences, medicine and health, and in instructional methods, testing and evaluation were used extensively to review the adequacy of the Programme's materials. Outside expertise also contributed to the development of training through the use of resource persons representing various areas of specialization and through population education and research institutions, such as The University of the Philippines Population Institute, the U.P. College of Public Health, the U.P. College of Education, the University of Santo Tomas Institute for the Study of Human Reproduction, the Asian Social Institute, the Commission on Population, the National Media Production Centre, the Department of Health and various religious organizations. Training held at the divisional, district or school levels also involved these agencies through their local offices or branches, wherever possible. Eductional personnel, supervisors and teachers, who had tried out population education materials, participated in their revision.

---

(1) Population Education Program. Family Size Preference Among Filipino Adolescents (Mimeographed).

In this part, attention is focused on the other formative evaluation activities undertaken by the Programme after its initial formulation of population education materials and training programmes. Co-ordinating visits, surveys, and workshops and conferences were the main follow-up strategies used by the Population Education Programme as part of its continuing efforts to shape Programme development and to facilitate Programme implementation.

Visits and *follow-up surveys* were used to bring the Programme closer to the teacher training and school classrooms and to obtain first-hand information regarding needs and problems in implementation. Recommendations for future improvement and enrichment were considered at Regional Conferences by administrators, supervisors and superintendents, and used in the preparation of regional-specific follow-up schemes for the implementation of population education programmes.

A series of conference-workshops were also held under the aegis of the *Population Education Research Utilization Project*, jointly sponsored by the Population Education Programme and the Population Center Foundation. The overall purpose of this project was to improve Programme implementation by increasing the flow of information between practitioners, administrators, policy makers and researchers ; involving these groups in problem-solving dialogues on specific problems related to population education ; disseminating relevant research undertaken in other countries ; and faciliting national research on population education through skill training. The following publications, prepared by the Research Utilization Project, contain overviews of the integration of research with programme development, summaries of relevant research undertaken in other countries and locally, mainly by the Population Education Programme itself, and participants' discussions, recommendations and, in some cases, lesson plans. (1)

- The Philippine Experience in Curriculum Development for Population Education : the State of the Art
- Introducing Human Sexuality Into the Population Education Curriculum
- On the Effectiveness of the Discovery Approach as a Teaching Method for Population Education
- Teacher Training Schemes in Population Education
- Value Clarification on Population Education (2).

Due to the novelty of population education's emphasis on value-clarification, this topic was further investigated by the Population Education Programme in collaboration with the Child and Youth Research Centre in a study of the strategies related to value-clarification used by over 2,000 randomly selected elementary and secondary school teachers. The study suggested a greater time-allotment for value-clarification in teacher training and ways of strengthening this component in the teacher's guides.

To stimulate research related to population education, particularly in the classroom, the Research Utilization Project organized a series of seminars for Research and Evaluation Supervisors. In connection with this activity, participants developed a *Manual on Population Education for Research and Evaluation Supervisors*, which included information on the research implications of basic population education concepts, principles, strategies and research problems of high priority ; the development of research programmes and examples of designs and instruments ; and the research utilization process and its operation at the local level. Additional seminar outputs included : research designs for specific problem areas, evaluation instruments and an overall evaluation design for future use in the development of the Population Education Programme.

The Programme also conducted a comprehensive national survey of all school divisions after five years of Programme implementation to obtain a general assessment of its effectiveness and efficiency, elicit specific problems in the areas of teacher training, curriculum materials, and follow-up activities, and recommendations for improvement, and has formulated a long-range programme of continuous evaluation and feedback concerning instructional effectiveness and the status of Programme implementation.

---

(1) Population Education Research Utilization Monograph Series 1, Parts 1,2,3 and Series 2, Parts 1, 2. Population Information Division, Population Center Foundation, Philippines 1976.

(2) The strategies of value-clarification were the subject of papers by the chief resource person of the seminar, and they constitute a significant input. De la Cruz, L.D. "Population Education : Teaching Process for Teaching A Moral Dilemma". *Proceedings of the Population Education Research Utilization Conference.* Manila, 1976.

DISSEMINATION

These efforts to involve educational personnel in the development of the Programme served the dual functions of improved implementation and increased motivation and commitment among practitioners. To further activate support for the institutionalization of population education, the Population Education Programme has sought, in numerous ways, to stimulate the interest of key educators and the wider society in population issues in general and population education in particular.

Many of the activities noted in other parts of this study were vehicles for the dissemination of information to create understanding of and support for population education. The Programme's advisory board, the Population Education Council, has served as a channel through which information on population education has reached a large network of organizations and programmes. As early as the initial steps of the Programme, the inclusion of support staff from different offices in the Department of Education (now Ministry of Education and Culture) was intended to develop an understanding of the new Programme among top-level educational administrators. The list of carefully designed and successfully executed activities to reach various target-groups in the educational and social systems is long and varied and can only be suggested here by a few examples : nation-wide orientation seminars for teachers and parents ; forums to elicit their reactions to content and their participation in culturally-specific adaptations ; information handbooks designed for the general public ; special conferences for private school heads, deans and directors of teacher education colleges, and vocational school administrators and pupil-material for 'take-home' use.

PART VI

THE CONTRIBUTION OF POPULATION EDUCATION TO EDUCATIONAL INNOVATION AND RENOVATION

The introduction of population issues into the school curriculum, the exploration of the interrelationships between a wide range of social phenomena at both the micro- and the macro-levels, the explicit attention to the preparation of students for their future role as adult decision-makers in their families, their communities and their nation, each of these innovations had an impact on curriculum design and instruction and make it possible to assert that population education became both a stimulus to and a support for wide-spread educational reform.

To introduce this new dimension into the curriculum, the Population Education Programme carried out a variety of tasks which were relatively new for the Philippine educational system : the task of developing an interdisciplinary content ; the task of designing an integrated mode of inclusion, the task of developing materials for teachers which would communicate both the new content and new teaching-learning methods ; the task of designing and implementing a massive in-service teacher-training programme ; and the task of creating a flow of information *from* the Programme to teachers, educators and the public, and back *to* the Programme from these same sources. The fact that the Programme met these challenges with a large degree of success also served to strengthen - through both theory and practice - the general renovation of Philippine education.

POPULATION EDUCATION INNOVATIONS AND THEIR CONTRIBUTION TO THE CURRICULUM

The content of population education introduced *new knowledge* into the Philippine curriculum - primarily, knowledge about demographic processes and changes, or socio-economic interrelationships, but also about human development, especially in relation to sexuality and reproduction. The inclusion of this knowledge itself was a *contribution to the increased social and personal relevance* of the Philippine curriculum. Of greater importance, however, is the fact that the population education content included an *analysis of the causes and the consequences of population processes* and human behaviours and that its cognitive objectives included the development of students' understanding of the relationships between these population processes and behaviours and a wide variety of social and cultural phenomena. The scope of the population education content embraced necessarily a range of considerations drawn from many disciplines. Whether it be an examination of age at marriage or the differential distribution of the Philippine population by region, the analysis of its causes and consequences involved the interrelationships between diverse elements in the social sphere. This *interdisciplinary analysis of the interrelationships between the demographic, socio-economic and cultural phenomena* is the second contribution of population education to Philippine education : an *interdisciplinary orientation permeated the curriculum* through the integration of population education sub-units into the syllabi of Science, Social Studies, Mathematics, Home Economics and Health Science.

A final innovatory aspect of population education content was its *inclusion* of material dealing with human sexuality and reproduction. Widespread acceptance among parents and laymen for public instruction of a *traditionnaly "private" or family domain* helped to give impetus to the inclusion of other subjects like drugs, which the educational system previously had felt were peripheral to its mandate.

This focus on the interrelationships between a variety of phenomena contributed significantly to a broadened and deepened *understanding of the content of the subjects* into which population education sub-units were introduced and gave a quite new light on traditionally omitted issues. One suggestive example illustates this assertion : the web of interrelationships between the economic status of the family and family health were aspects already referred to in both economics and health science, but were not explicity explored in either subject. Through their inclusion in a population education sub-unit, the implications and ramifications of both content areas were highlighted and explored more thoroughly. Thus the population education sub-units were seen by subject teachers as complementing and enriching 'their' subjects and contributing to 'their' teaching-learning objectives. To them, the population education sub-units added to the interest, the scope and the comprehensiveness of their instructional task. The *Resource Book on Population Education*, prepared and distributed to teachers, came to be considered a valuable reference for teaching not only population education but also other social science courses.

In addition, the social relevance of the content and the educational significance of its interdisciplinary orientation have *prompted the widespread inclusion of population education by a variety of educational programmes* *and institutions.* Educators began to suggest that population sub-units be introduced into other subjects in the school curriculum in order to similarly increase their scope. Population content was incorporated in the textbooks which were prepared by both the Science Education and the Social Studies Centres. At the tertiary level, population considerations are now to be found in the courses of a number of colleges on a fairly extensive scale. Among the programmes in which population education now is included, either as a required or as an elective subject, are those leading to the AB degree, BSc degree, BSc degree in Agricultural Education, BS degrees in Engineering, Industrial Management, Community Nutrition, Chemistry, Home Economics and Social Work ; and, at the Master's level, in Educational Administration and- of course -in Population Studies. In some colleges, population education is a subject for students in commerce, business administration and secretarial work. Other colleges have integrated population education into subjects such as ecology, marine biology, zoology, natural sciences, mathematics, sociology, psychology, agricultural economics, agronomy, aquaculture, home economics, health education, nursing and medicine ; and into topical courses such as current issues and social orientation. Universities have established separate courses in population education such as the course on Population Education for National Development.

The objectives of population education included also the development of attitudes and skills which would prepare students for their *future decision-making* responsibilities as individuals, parents, community members and national citizens. In the consistency with which it sought to achieve these objectives through new *instructional designs and participatory teaching-learning methodologies*, population education was almost unique in Philippine education. The design of a majority of the population education sub-units followed a similar pattern : (1)

The presentation and clarification of an issue - either a personal or a social problem - with population dimension which raised the possibility of ALTERNATIVE choices ;

The analysis of the issue to achieve understanding of both the interrelated causes (determinants) and consequences of the alternative ways of dealing with the issue ;

The formulation of individual decisions through a process of clarifying personal values and considering the consequences of the decisions for other individuals and for the general social welfare.

Thus, the mastery of content and the understanding of social interrelationships was combined with a vital question, with real-life implications, that students could recognize and identify with. The use of this instructional design that "humanized" content by embedding it in issues of personal relevance and social importance *contributed a greater meaningfulness to instruction and* enabled subject teachers to achieve a *problem-orientation.* They found that population education sub-units helped them to introduce living issues and realism into their topics of instruction and that this, in turn, stimulated a heightened concern among their students with the quality of life, the dignity of human beings, national problems and welfare, and a sense of responsibility for their futures. In a variety of contexts teachers have attested to the fact that, through its problem-orientation, population education fostered among students greater awareness and involvement in the solution of community or societal problems and thus developed a sense of commitment and of social responsibility.

Students' personal concern with population issues and problems and their interest in the decision-making process was stimulated by the *use of teaching-learning methods that increased their active participation and reduced teacher-authority and teacher-oriented instructional methods* putting the emphasis, on the contrary, on learner-centred teaching. Through the use of teaching-learning methods like role-playing and analysis of case studies, brainstorming, buzz sessions, small group discussions, interviews and surveys, population education sought in fact to create a teaching-learning situation in which students and teachers *together* explored and discovered the implications of the dynamics of their social context and their individual points of view. Each student became a valuable classroom resource, and through the use of these methods, each student was encouraged to contribute his ideas, feelings and understanding of the issues and problems under consideration. In this way, students were helped to develop a sense of competence and personal worth and a simultaneous empathy with and respect for the diversity contained within the classroom group. In addition, the non-authoritarian, teacher-student relationship in this learning situation modeled for students democracy-in-action, thus contributing to their future citizenry roles.

Although population education was neither the first nor the only educational programme to use these methods, it was one of the first to make their use an explicit programme objective. The Population Education Programme accordingly provided concrete guidance in their utilization through carefully developed lesson plans and teacher's guides, and extensively demonstrated these methods in teacher-training programmes. In this way, the Population Education Programme *helped to promote the use of participatory, discovery-oriented teaching-learning methods within the wider educational system.* Encouraged by the training provided by the Population Education Programme, supported by the guidance of its curriculum materials, teachers readily adopted the new methods, first for teaching the population education sub-units, and gradually, as they came to recognize the contribution of these methods to students' involvement in the learning process, in other subject areas as well.

POPULATION EDUCATION PROGRAMME ACTIVITIES AND THEIR CONTRIBUTION TO THE EDUCATIONAL SYSTEM

The Population Education Programme was one of many programmes seeking to design and to introduce changes in Philippine education. In several important ways, the Programme's activities served as testing-grounds and models for the activities of other groups and institutions, and thus facilitated the general process of educational renovation.

---

(1) In some cases, the factual determinants-consequences were introduced first, and then explored through the introduction of the personally-relevant dilemma or social problem.

Permeation of an Interdisciplinary Orientation

Population education was not the first subject in the school curriculum to combine elements from a variety of disciplines : Social Studies is an interdisciplinary subject, and so, to some extent, are Mathematics and Science. However, the Philippine Population Education Programme had no existing precedent for the concepts and the relationships between disciplines that would form the core of its content ; these had to be selected and elaborated as part of the process of Programme development - a task of considerable magnitude since population education had to cover every grade and five different subjects within each grade, in the primary and secondary school, as well as the tertiary level. This effort therefore required extensive collaboration between the Programme's educators and scholars in a variety of fields. It is through *the extent to which the Programme drew upon and utilized the contributions of scholars from a range of academic disciplines that the process of the development of the content of population education had significant consequences for the wider educational system.* These scholars themselves found the process of identifying and clarifying the relationships between population processes and their own disciplines to be a challenging one which highlighted new dimensions of their own areas of concern and also gaps in available empirical data. Their collaborative efforts to identify the interrelationships between their respective content areas led these discipline specialists to re-examine a variety of social interrelationships and to begin to encourage course coverage and research with an interdisciplinary orientation.

From the point of view of the educational system itself, population education served as an *impetus to increased interdisciplinarity*, with an accompanying elimination of some of the material that seemed, in the light of this interdisciplinary orientation, to be subject-learning for its own sake. It has been noted that the value of the interdisciplinary approach was highlighted as a result of population education, and that, for example, a re-examination of the rest of the teacher education curriculum has taken place through the new insights brought about by the introduction of population education. The use of team-teaching, which was an outgrowth of population education's interdisciplinary approach, and hence emphasized by the Programme, has spread to other subjects in the curriculum.

Development of an Integrated Curriculum Design

The decision to *integrate population content* into the curriculum through the insertion of sub-units in five different subjects confronted the Programme's curriculum development personnel with an altogether novel and challenging task which had not been undertaken previously in Philippine education. The *successful achievement* of such a complex exercise was *an impetus to the desire and the willingness to integrate* other new *content of social relevance into the curriculum.* The difficulty of the task of integrated design arose from the need to simultaneously take into account considerations pertaining to the *level* of introduction, the *sequence* and the *coherence* of the population content and also the *appropriateness* of this content to the *objectives*, the *content*, the *methods*, the *sequence* and the *coherence* of the subjects into which it would be introduced. Programme staff had to *both* determine the population learnings that would be suitable for students at different levels and to identify points in the syllabi where these learnings would be natural complements to the objectives and the content of other subjects. For each integration of population content at successively higher levels, they had to ensure that they were *both* building on information which already had been presented and skills which had been mastered, and simultaneously reinforcing antecedent learnings in the subject into which the population content would be included. Finally, they had to ensure that there was both *horizontal* and *vertical continuity* in the population content, so that, at each grade level, there would be coherence to the population content introduced in the different subjects, and from one grade level to the next, there would be a similar within- and across-subject coherence, so that population education would become a cumulative learning experience of progressively increasing scope, complexity and depth.

Curriculum Materials

The Programme's use of a variety of instructional materials also stimulated their more widespread utilization within the educational system.

In particular, the success of self-instructional modules which required a minimum of teacher guidance and supervision both in the classroom and as "take home" materials *has encouraged the development of similar materials in other areas.*

The syllabus which was prepared by the Population Education Programme for use at the college level was considered by many to be a useful *model for other syllabi*, in terms of its systematic division into Objectives, Content, Outline, Suggested Learning Experiences and Instructional Materials. It has even been considered that the detailed syllabus prepared by the Population Education Programme stimulated at least one college Vice-President for Academic Affairs to require the submission of meticulously prepared syllabi for all courses at the college.

New Approaches to Teacher Training

The supervisory and in-service teacher-training programme developed by the Population Education Programme made several important contributions to the educational system. The fact that more than 500 educators received five weeks of training to prepare them to lead the in-service training courses, and several thousand teachers received short-term in-service training *helped to up-grade the general level of system competence.* Of equal importance is the fact that the Population Education Programme tried, *and demonstrated the* *success of, new approaches to in-service training which then could be used in connection with other curricular reforms.* The successful use of the relatively untried strategy of implementing in-service training through personnel at lower levels of the educational system demonstrated that once an innovation has received a certain amount of diffusion through formal means, its diffusion could be accelerated through the use of less formal means.

The second new approach to teacher training was the Programme's preparation of twelve self-instructional teacher-training modules. Teachers' interest in and enthusiasm for these modules not only helped to accelerate training in population education but also made the use of modules come to be considered a model strategy for upgrading teacher competencies in other fields. By far the most convincing evidence of the perceived value of the modular approach came from the efforts, taken by those exposed to it, to prepare modules in other subject areas.

Promotion of Research

During all stages of its development the Population Education Programme undertook a variety of research activities which were suggestive for other subject areas to enrich and adapt its content to local needs, conditions, attitudes and values.

Of equal, and possibly greater significance, is its Research Utilization Programme. Through conferences and resulting publications, this programme has *demonstrated the applicability of research in the solution of practical problems*, to a cross-section of the educational system, ranging from top-level policy-makers to classroom teachers, by involving them in a process of problem-identification, examination of needs and relevant research topics, and the formulation of recommendations to help frame future policies and programmes. By bridging the gap between academic research and action, this programme has underscored the valuable contribution of research to on-going programme development. In addition, the Research Utilization Programme has provided training in research methods and techniques, especially at the classroom level, to personnel within the educational system, developed research designs and instruments, and formulated an overall strategy for research, evaluation and feedback - all of which have stimulated research in other areas, especially those related to reforms in the educational system, such as the new bilingual policy.

Utilization of Formative Evaluation

The Population Education Programme consistently employed the same approach toward Programme development that it advocated to classroom instruction, namely joint participation in inquiry, discovery and problem-solving. Consequently, *it modeled – both to its own practitioners and to other programmes – responsiveness to emergent needs and the use of practical experience to shape and guide the Programme* through an on-going dynamic process of review and revision of content, materials, teaching-learning methods and implementation strategies.

Several times, this process was augmented by special research studies or efforts to secure inputs from particular ethnic groups, e.g. the Muslim community (in the adaption of curriculum materials), or parents (in the formulation of content related to human sexuality). Implementation of population education within the formal educational system and its spread to the non-formal and out-of-school sectors also was accompanied by consistent endeavours to elicit practitioners' experience and recommendations in modifying content, developing strategies to deal with identified problems and formulating guidelines for new directions. Most recently, the Population Education Programme has evolved a comprehensive scheme for programme monitoring and feedback.

This willingness to incorporate inputs from personnel at all levels of the educational hierarchy contributed to *an increased sense of competence and professional involvement* among Philippine educators and stimulated their creativity in designing new materials and instructional approaches for use in population education and other content areas. It also helped to promote the attitude that problems are challenging opportunities for continued growth and development an attitude which is a necessary precondition for renewal and reform.

Introduction of the School Into the Wider Community

Population education had considerable effect on community education through teachers' action, through the Programme's direct extension into non-formal and out-of-school education, and through efforts to inform the wider community about population education and population issues and their relevance to other aspects of family and community quality of life.

There is agreement among Philippine educators that training in population education *stimulated their awareness of and interest in a broad spectrum of social issues and their feelings of responsibility toward national development* and that the approaches and methods used by the Programme made the exploration of social problems, the clarification of values, and the imperative for action personally meaningful. Teachers, for example, have reported increased propensities to look for the interrelationships between social phenomenon ; greater awareness of the nature of problems of their immediate surroundings ; more concern with the quality of life, the conservation of resources and individual behaviours and decisions with population implications ; and new willingness to make a critical analysis of life-styles, values and attitudes which had been taken for granted. These teachers introduced population education at conferences with laymen, PTA meetings, community and barangay assemblies, meetings of youth leaders and non-formal education classes. The resulting teacher enthusiasm and community interest led *to an examination and eventual incorporation of education concerning other social problems and government policies by non-formal and out-of-school educational programmes.*

In addition to the personnal efforts of teachers, the Population Education Programme has encouraged agencies and organizations in the non-formal and out-of-school sectors to incorporate population education and has developed a national framework for non-formal population education.

Awareness of population matters has been further extended through the use of both mass and folk media. Radio broadcasting, newspapers and rural theatres have given increasing attention to population themes, thereby contributing further to public understanding of population issues and the Programme's efforts.

The *integration of the school and the community* which the Programme both practiced and modeled *has been a two-way process.* The community has been informed about this new educational area and has participated in decisions regarding population education content and the adaptations of materials to suit the needs and conditions of cultural minorities. Surveys of families in the community to collect population data by students have yielded results which have been incorporated into classroom learning. Community resources - both human and material - have been utilized in population education classes so that instruction could be grounded in direct experience and immediate social realities. As a result, *the school-community relationship has improved*, and population education has helped the Philippine educational system to move toward the national educational goal of an enhancement "in the range and quality of individual and group participation in the basic functions of society".

ANNEX I

SCOPE AND SEQUENCE CHART

The content of the Population Education sub-units for the elementary and secondary levels is arranged in a scope and sequence chart. This will enable the teacher to view the entire content of the PEP curriculum both from the horizontal and vertical perspectives.

Social studies	Health education	Elementary science	Home economics	Mathematics
Grade I I. The Family A. What the family is B. The purpose of the family C. Size and composition of the family D. Some effects of family size on some needs of the family	Grade I I. Effects of Family Size on Basic Needs A. Relation of family size to food, housing and clothing needs B. Effects on family health	Grade I I. The Genitals A. Knowing the genital organs that differentiate boys from girls B. Care of the genitals – 1. Personal cleanliness		Grade I I. Family II. Family Size III. Replacement
Grade II I. Population and Population Change in School A. What is a population B. Some characteristics of a population – 1. age – 2. sex – 3. occupation – 4. size – 5. change C. The school population changes in size over time	Grade II I. Family Size and Food Needs A. Family size and quantity of food requirements B. Family size and quality of food requirements	Grade II I. Male and Female Characteristics In Man and Animals A. Maleness and femaleness of animals – 1. Recognizing differences between males and females – 2. Names of some male and female animals B. Maleness and femaleness of man – 1. Every child is either a boy or a girl. – 2. Characteristics that distinguish girls from boys		Grade II I. Family II. Family Size III. Birth IV. Dependence

Social studies	Health education	Elementary science	Home economics	Mathematics
Grade III I. Population Changes in the Community A. Change of size through births B. Change of size through deaths C. Change of size through migration	Grade III I. Family Size and the Emotional and Social Health of Family Members A. Role of the family in the emotional and social health of its members B. Family size and its effects upon the emotional and social health of the family	Grade III I. Overcrowding (Density) Affects Individual Needs A. Needs and care of living things – 1. Effects of overcrowding on plants, animal, and man in terms of individual share of available needs (food, space) and growth		Grade III I. Family II. Family Size III. Dependence IV. Birth V. Death VI. Migration
Grade IV I. Effect of Migration on Population Growth A. Type of migration – 1. Barrio to town, city to city – 2. Town to city B. Reasons for migrating – 1. Seek jobs – 2. Better opportunities C. Effects of migration – 1. On the place left – 2. On the place migrated to D. Characteristics of migrants	Grade IV I. Population Size School Health Personnel and Facilities, and Community Health Service A. Effects of school population on the quality of school health services and facilities B. Effects of population size on the quantity and quality of health services in the community	Grade IV I. Non-Human Population A. Relationship between some animal's capacity to reproduce and some environmental factors B. Balance of nature (Introduction to ecology)		Grade IV I. Birth II. Death III. Migration IV. Population Status V. Population Growth VI. Age Groups VII. Projections
Grade V I. Family Size A. Family size norm in the Philippines – 1. Completed family size B. Factors that promote large family size – 1. Custom, pratices beliefs – 2. Government measures C. Relationship between family size and population growth	Grade V I. Changes in Mortality A. Changes in mortality over time B. Factors that contribute to mortality decline	Grade V I. Man's Adaptation to the Environment A. RPG and the utilization of agricultural lands and forest areas for housing – 1. Agricultural lands used as subdivision – 2. Forest areas used for housing B. RPG and maximum utilization of resources – 1. Improved agricultural practices	Grade V I. Some of the Changes in Boys and Girls at puberty A. Growth in height and weight B. Development of breasts C. Widening of hips D. Growth of pubic hair E. Menstruation in girls F. Ejaculation in boys II. Significance of some pubertal changes to fertility behavior	Grade V I. Population status II. Projection III. Birth Rate IV. Death Rate V. Rate of Natural Increase VI. Life Expectancy VII. Population Density VIII. Dependency Ratio

Social studies	Health education	Elementary science	Home economics	Mathematics
Grade VI I. Consequences of RPG on the Family and Community A. Economic B. Health C. Food Production D. Eduction E. Environment F. Socio-Phychological II. Planning and Decision Making A. Importance of planning and decision making B. Making a decision on family size	Grade VI I. Some Consequences of RPG on Community Health A. Some consequences of RPG which directly affect man's health and well-being B. Government's effort to solve problems brought about by RPG	Grade VI I. Some Effects of RPG on Man's Environment A. Man's rapid population growth may upset the balance of nature – 1. Destruction of natural habitats of other living things – 2. Overexploitation and/or depletion of resources – 3. Pollution B. Need for Conservation – 1. Government policies – 2. Reforestation	Grade VI I. Age at Marriage A. Advantages / Disadvantages of early / late marriage B. Customs, beliefs, and practices that influence age at marriage C. Laws regulating age at marriage D. Relation of age at marriage to number of children and standard of living	Grade VI I. Birth Rate II. Death Rate III. Migration Rate IV. Rate of Natural Increase V. Growth Rate VI. Dependency Ratio VII. Life Expectancy VIII. Population Density IX. Population Projections
First Year I. Consequences of RPG on the Macro Level A. Philippine population growth B. Age structure and population profiles C. Burden of dependency D. Per capita income E. Relationship between population growth and per capita income	First Year I. Pubertal changes of boys and girls A. Physical B. Emotional II. Development of the sex drive A. Awareness and acceptance of the sex drive B. Factors influencing the development of sex attitudes	First Year - Integrated Science I I. Effects of RPG on Physical Environment and Natural Resources A. Relation of RPG to non-renewable resources B. Relation of RPG to discovery, invention, and utilization of new resources C. Relation of RPG to the re-using of renewable resources	First Year I. Effects of Family Size, Parity, and Spacing on Health A. Family Size – 1. Child and parental morbidity in large/small families B. Parity – 1. Effects of multiparity on parental, physical and emotional health C. Spacing – 1. Effects of close birth spacing on the health of the mother and the child	First Year I. Birth Rate II. Death Rate III. Migration Rate IV. Rate of Natural Increase V. Growth Rate VI. Doubling Time VII. Dependency Ratio VIII. Life Expectancy IX. Projections X. Density

Social studies	Health education	Elementary science	Home economics	Mathematics
Second Year I. Population Situations A. Philippines – 1. Fertility behaviour a. Population size b. Birth rate death rate growth rate doubling time c. Population age structure – 2. Causes and effects of fertility behavior a. Pro-natalist Phil. beliefs, laws and practices b. Consequences of RPG on food production, health, education, economy and others B. World – 1. Fertility behaviour a. Population size b. Birth rate death rate growth rate doubling time Population Issues	Second Year I. Mortality Transition A. Trend of mortality in the Philippines B. Measures of Mortality C. Mortality Rates by Age and Sex D. Causes of High Mortality E. Population Density and Disease Occurrence F. Health Programs to Reduce Mortality	Second Year Science II I. Plant and Animal Population Dynamics A. Factors in the environment that may influence animals chances of survival B. Result of high density C. Implications for human population D. Effect of RPG on the ecosystem	Second Year I. Effects of RPG on Food Production A. Relationship of RPG on per capita food production and health B. RPG is/is not advantageous to food production	
Third Year I. Population Change A. Demographic transition – 1. In developed countries – 2. Relevance to developing countries B. World population growth trends C. Philippine population growth trends D. Methods of measuring population growth	Third Year I. Relation of Fecundity and Sterility to Fertility A. Fecundity – 1. Fecundity as differentiated from fertility – 2. Determinants of fecundity – 3. Relation of fecundity to fertility B. Sterility – 1. Causes – 2. Remedies C. Beliefs, attitudes and values on fecundity and sterility		Third Year I. The Human Reproductive Process A. Processes involved in reproduction – 1. Ovulation – 2. Fertilization – 3. Implantation – 4. Pregnancy – 5. Childbirth B. The relationship between human reproduction and population control C. Methods of conception control D. Accepted sexual moral behavior	

Social studies	Health education	Elementary science	Home economics	Mathematics
Fourth Year I. Planning for the future A. Importance of planning and decision making B. How to plan and make decisions C. Life situations that need planning – a. Especially in terms of planning a family	Fourth Year I. Family Planning A. Family planning as a means of fertility control B. Health benefits of family planning – 1. To the mother – 2. To the baby – 3. To the family as a whole C. Methods of family planning 1. Temporary voluntary control – a. Rhythm method – b. Sublimation of the sex drive – c. Advantages and disadvantages 2. Contraception – a. Methods – b. Advantages and disadvantages 3. Sterilization – a. Methods – b. Advantages and disadvantages 4. Family-planning services – a. Governmental – b. Non-governmental		Fourth Year I. Responsible Parenthood A. Roles of Parents – 1. To each other – 2. To himself/herself – 3. To their children B. Issues and Problems of parenthood C. Motivations for wanting/not wanting children D. Practices and policies which may influence family size – 1. Child-rearing practices – 2. Government policies related to maternity leaves, tax exemption, etc.	

ANNEX II

POPULATION EDUCATION PUBLICATIONS

Teacher Materials

1. Background Information for Teachers

2. Teacher's Guides for Use in the Elementary Level

Teacher's Guide in Population Education for Elementary Science
Teacher's Guide in Population Education for Elementary Mathematics
Teacher's Guide in Population Education for Social Studies (also in Filipino)
Teacher's Guide in Population Education for Home Economics (also in Filipino)
Teacher's Guide in Population Education for Health Education (also in Filipino)

3. Revised Teacher's Guides for Muslim Filipinos (elementary level)

Teacher's Guide in Population Education for Elementary Science
Teacher's Guide in Population Education for Elementary Mathematics
Teacher's Guide in Population Education for Social Studies (in Filipino)
Teacher's Guide in Population Education for Home Economics (in Filipino)
Teacher's Guide in Population Education for Health Education (in Filipino)

4. Teachers's Guides for Use in the Secondary Level

Teacher's Guide in Population Education for Science
Teacher's Guide in Population Education for Mathematics
Teacher's Guide in Population Education for Home Economics (also in Filipino)
Teacher's Guide in Population Education for Social Studies (also in Filipino)
Teacher's Guide in Population Education for Health (also in Filipino)

5. Revised Teacher's Guides for Muslim Filipinos (secondary level)

Teacher's Guide in Population Education for Science
Teacher's Guide in Population Education for Mathematics.
Teacher's Guide in Population Education for Social Studies (in Filipino)
Teacher's Guide in Population Education for Home Economics (in Filipino)
Teacher's Guide in Population Education for Health (in Filipino)

6. A Teacher's Guide in Population Education for Better Family Living

7. Course Syllabus in Population Education for Teacher Education as a Separate Course

8. Wall charts

Student Materials

1. Self-learning Units in Population Education for Grade Six

English Titles

Teacher's Manual for the Self-Learning Units in Population Education, Grade VI
Birth, Death and Population Size
Migration
Some Filipino Beliefs and Traditions
RPG and Food Supply
RPG and Health
Man and His Environment
Man and Natural Resources
RPG and Education

Filipino Titles

Manwal ng Guro Para sa Mga Yunit sa Sariling Pag-aaral sa Edukasyong Pampopulasyon, Ikaanim na Baitang
Ang Pag-aanak, Pagkamatay at ang Laki ng Populasyon
Pandarayuhan
Mga Paniniwala at Tradisyong Pilipino
Ang Mabilis na Paglaki ng Populasyon at Ang Tustos na Pagkain
Ang Mabilis na Paglaki ng Populasyon at Ang Kaugnayan Nito sa Kalusugan
Ang Mabilis na Paglaki ng Populasyon at Edukasyon
Ang Tao at Ang Kaniyang Kapaligiran
Ang Tao at Ang Mga Likas na Kayamanan

2. Reference Materials

Ang Mag-anak (The Family, for Grade I)
Ang Populasyon (The Population, for Grade II)
Ang Pandarayuhan (Migration, for Grade IV)
Ang Mga Epekto ng Mabilis na Paglaki ng Populasyon (Effects of Rapid Population Growth, for Grade VI)

3. Resource Book in Population Education for College Students

Training Materials

1. Training Manual for the One-Week Training Program for Elementary and Secondary School Teachers

2. Training Modules

Module Manager's Guide in Population Education
Module I - Definition, Objectives and Philosophy of Population Education
Module II - Demography : Components, Processes and Measures
Module III - The Growth of Population
Module IV - Demographic Transition
Module V - Population Age-Sex Structure
Module VI - Determinants of Population Change
Module VII - Population Distribution and Density
Module VIII - Consequences of Population Growth
Module IX - Human Sexuality and Reproduction
Module X - Family Planning
Module XI - Population Policies and Programs
Module XII - Study of the PEP Curriculum and Subunits

Research Materials

1. Manual on Population Education for Research and Evaluation Supervisors

2. Reports / Abstracts

An Analysis of the Population Content of Current Textbooks in the Philippine Public Elementary and Secondary Schools.
Culture and Population in an Ilocano Barrio
Study on the Reactions of Parents, Teachers, Laymen and Other Segments of Society Towards Certain Potentially Controversial Population Education Content
Study of Student's knowledge of and Attitudes on Population Matters in Selected Schools
How Filipino Children Develop the Concept of Family Size
Study on Family Size Preference Among Filipino Adolescents
Study on the Fertility Behavior of Male and Female Teacher-trainees on Population Education
Survey on the Availability of Teaching Guides in the Different Subject Areas Where Population Education is Integrated
Value Clarification in Population Education
Modular Approach in the Training of Teachers for Population Education
Case Study on Out-of-School Population Education Programs in the Philippines

3. Modules (in collaboration with De La Salle University)

Module I - Population and Demography
Module II - Human Reproduction and Sexuality
Module III - Filipino Family Life and Marriage
Module IV - Health and Population

Other Materials

1. Planning for the Future : Population Education in the Philippines

2. Preparing Tomorrow's Parents Today

3. Some Philippine Beliefs and Practices Related to Fertility

4. National Bibliography on Population Education

5. Population Education : A Multisectoral Concern

6. Ang Laki ng Pamilya at Ang Kalusgan ng Pamilya (Family Size and the Health of the Family)

7. Ang Mag-anak na Culala sa Barangay Batukada (The Culala Family of Barangay Batukada)

8. PEP Brochure

Contribution of population education to educational renewal and innovation

An analysis of the Tunisian population education project

by R. Lallez, consultant

Population Education Section
Division of Equality of Educational Opportunities and Special Programmes
Unesco Headquarters, Paris

144

TABLE OF CONTENTS

Pages

INTRODUCTION 157

PART ONE : ORIGIN, BASIC OBJECTIVES AND OVERALL CONCEPTION OF THE PROJECT 159

I – The demographic, economic and social setting 159

II – Population policy of Tunisia and the role of the National Bureau of Family Planning in the field of education : the origin of the project 161

III – The project's philosophy and objectives : developing the concept of population education 164

PART TWO : DESCRIPTION AND ANALYSIS OF PROJECT IMPLEMENTATION .. 167

I – The main agents of project implementation : their functions and activities 167
1) The central team 167
2) The regional coordinator 168
3) The teacher-coordinator 169

II – Integration of population education 169
1) Training of educators 169
2) Integrated courses and objective-centered programmes 174
3) Test-lessons 176
4) Extra-curricular activities 177
a) "Education and Population" Club 177
b) "Education and Population" Club and the field surveys 178

III – Funding : sources and allocations 181

PART THREE : THE IMPLEMENTATION OF THE PROJECT : LESSONS, PROBLEMS AND OUTLOOK FOR THE FUTURE 182

I – The project seen as a strategy of innovation 182

II – The principal innovations resulting from the implementation of the project 185

1) Teaching approach and teachers' attitudes 185
a) Population education contents 185
b) Teaching methods 186
2) School administrative staff : school principals and inspectors 188
3) Students 189
a) Contents 189
b) Methods 189
4) Outside participants 191

III – Problems and prospects 191
1) General suggestions 191
2) Epistemological and pedagogical problems: integrating population education into the various disciplines and objective-centered programming 193
3) Cultural and axiological problem : population education considered from the angle of norms and values 195

ANNEX I : List of Secondary Schools Integrated into the Population Education Project. .. 197

ANNEX II : Agenda of a Seminar. 199

TABLES AND DIAGRAMS

Pages

Table N° 1 The population of Tunisia according to the census figures from 1921 to 1966 159
Table N° 2 Comparative table of the population distribution by age-group (Tunisia, France, Italy) 160
Table N° 3 Structure of Tunisian population by age-group (1975) 160
Diagram N° 1 Diagram of project 168
Diagram N° 2 Role of the regional coordinator 170
table N° 4 Study themes of population education 172
Table N° 5 Objectives of the information day 173
Table N° 6 Participation of specialists in population education activities in the Sfax region (1977 - 1978) 177
Table N° 7 Themes of extra-curricular activities in the Béja region (1977 - 1978) 178
Table N° 8 Framework for a study on the theme of women's work 179
Table N° 9 Questionnaire to be used with the supervisory staff of a factory which employs women and girls 180
Diagram N° 3 Allocation of UNFPA funds 181

INTRODUCTION

Located between Algeria and Libya, Tunisia forms the "Maghreb" of North Africa together with these two countries and Morocco. Its area, which covers 164,150 km2, can be divided into three distinct zones. The *North*, which represents 20 % of the total area, is located along the Mediterranean coast and includes the Atlas Mountain range and the country's most fertile land. The most important economic activities and 70 % of the total population are located in this zone. The *Center* is formed by steppes which cover almost 20 % of the country's total area. Wheat, olives and citrus fruit are grown along the coast whereas the inland zones are used mainly for grazing. The *South* which has a dry climate, consists mainly of 50,000 km2 of desert, the Tunisian Sahara, except for an inhabited narrow strip along the coast and a few irrigated oases where date palm production and grazing are possible.

Tunisia belongs to the Western Mediterranean subtropical climatic zone, characterized by hot dry summers and wet rainy winters. Throughout the country's history, floods or droughts have provoked periodic crises in the South and elsewhere. Following Tunisia's independence in 1956, the Republic was founded by Mr. Habib Bourguiba, President of the Republic and founder of the Destourian Socialist Party. Tunisia is administered by the governors of the 18 *regional governorates* which are divided into Territorial Delegations, themselves divided into "Imadas", Communes and Municipalities which are the smallest administrative units of the country.

Signs of social change are noticeable throughout most of Tunisia. Universal primary education has led to a considerable expansion in professional training and schooling. Faculties of Humanities, Law, Economics, Science and Medicine, as well as Institutes of Art, Architecture and Townplanning, Agronomy and Engineering have been created at the University. The press, radio and television play an important role in spreading culture. Although traditional values continue to predominate in the country's inland areas, new patterns of behaviour are increasingly found in most of the coastal cities and in the North.

The introduction of the market economy, the agrarian reform, a heightened political awareness and the emancipation of women have strengthened the State and begun to produce changes in the family structure. The ethnic and religious cohesion found in Tunisia has contributed considerably to this process of social change. But the arab-islamic civilization of which the Tunisian society forms a part appears to cause a large part of the Tunisian population to put up resistance to certain changes in group behaviour with respect to the family and couple, including attitudes towards fertility and women's status. As a Tunisian demographer, Mahmoud Seklani has said :

> "In the Arab countries and especially in the Maghreb, marriage customs and sexual morals (...), conform to certain ethical and social norms based on a complex set of religious beliefs and rules of conduct which Islam set forth at the dawn of its civilization (much more exensively than the Christian religion). The Islamic ethical principles seem to explicitly include teachings which still form the backdrop of social practices for all Moslems and continue to resist today's influence of the Malthusian concepts." (1)

---

(1) Seklani, Mahmoud, *La Population de la Tunisie*, Année Mondiale de la population, 1974, Séries du Comité International de Coordination des Recherches Nationales de Démographie (CICRED), Paris. The Union Internationale de Banques, Tunis, helped to make possible the publication of this work.

PART ONE

ORIGIN, GENERAL GOALS AND OVERALL CONCEPTION OF THE PROJECT

I - THE DEMOGRAPHIC, ECONOMIC AND SOCIAL SETTING

Soon after independence in 1956 the Tunisian leaders, after a careful study of population and related data realized that an extremely high population growth rate and consequently very rapid population growth would inevitably create serious problems for their country. The population explosion had begun during the thirties. In 1921 Tunisia had a population of only 2,093,939. By 1946 it had grown to 3,230,952 and by 1966 to 4,533,351 (1). In 1975 it was 5,572,229 (2) : thus in fifty years the population had almost tripled. A more complete view of these figures is given in Table 1 below. The *average annual growth rate* in 1975 was about 2.3 %.

Estimates show that if the fertility rate remains constant, the population would reach 7,047,100 by 1985 ; 10,228,900 by 1995 and 11,991,300 by the year 2000.

This increase can be explained by two reasons : the decrease in mortality rate and the continued maintenance of a high fertility rate.

Just after World War II the *mortality rate* was estimated at 27 ‰. By 1966 it had decreased to 14.6 ‰ and by 1974 and 1975 it was 10 ‰. It is important to mention that a 10 ‰ mortality rate seems to be the lowest possible figure for the coming years.

No doubt as a result of the population policy, the main aspects of which will be outlined below, adopted and carried out by the Tunisian Government, the *crude birth rate* which was 45 ‰ in 1966 had come down to 36 ‰ by 1975, which is still a high rate. Although the global fertility rate has decreased from 193 ‰ in 1966 to 147 ‰ in 1975, it also still remains high. The crude fertility rate was 2.87 in 1975.

A high fertility rate, widespread and early marriage are factors which explain the young age structure of the Tunisian population ; its distribution by age group in comparison with that of France and Italy in 1968 and 1967 respectively can be seen in Table 2 (p. 160).

The *1975* figures are not the same as those for 1966, probably because of the Tunisian population policy. The changes can be seen in Table 3 given page 160

By showing the large percentage of the dependent population (those less than 15 years and more than 65 years : almost half the total) which is supported by the working population, this table clearly brings out one of the two basic problems viz., economic, and consequently, social problems caused by this demographic situation. An increase in population usually provokes an additional demand for the various public services. The dependent population requires protection, therefore social services and urban services need to be set up or improved. When this increase occurs rapidly and the population is young, even more extensive investments are required. The planning figures show that the natural population growth would amount to a yearly increase of about 250,000 school-age

Table N° 1 : *THE POPULATION OF TUNISIA ACCORDING TO THE CENSUS FIGURES OF 1921 TO 1966*

	Tunisian Population			Foreign Population					Total Population
	Moslem Tunisians	Israelite Tunisians	Tunisians	Foreign moslems	French	Italian	Other	Foreigners	
3 - 1921	1,826,545	47,711	1,874,256	62,476	54,476	84,799	17,799	219,683	2,093,939
4 - 1926	1,864,908	53,022	1,917,970	67,020	71,020	89,216	14,266	241,778	2,159,708
3 - 1931	2,086,762	55,340	2,142,102	72,389	91,427	91,178	13,596	268,590	2,410,692
3 - 1936	2,225,750	59,222	2,324,972	69,873	108,068	94,289	11,111	283,341	2,608,313
1 - 1946	2,332,978	70,971	2,903,949	86,882	143,977	84,935	11,209	325,003	3,230,952
2 - 1956	3,383,904	57,792	3,441,696	86,149	180,440	66,910	7,947	341,473	3,783,169
5 - 1966	–	–	4,466,517	34,067	16,664	10,144	5,959	66,834	4,533,351

---

(1) Seklani, Mahmoud, La Population de la Tunisie, *op. cit.*

(2) Source : Tunisian National Institute of Statistics.

Table N° 2 : *COMPARATIVE TABLE OF THE POPULATION DISTRIBUTION BY AGE-GROUP (IN PERCENTAGE)*

Age group	Tunisia 1966 %	France 1968 %	Italy 1967 %
0 - 4	18.5	8.4	8.9
5 - 14	27.8	16.6	15.4
15 - 64	50.1	62.4	65.4
65 and over	3.6	12.6	10.3
TOTAL	100	100	100

Source : Tunisian National Institute of Statistics

children during the 1974 - 1983 period. This of course, does not necessarily imply that we regard population growth as the main cause for economic stagnation or for the eventual impoverishment of the nation. However, when the population figures and their ratio increase at a rapid rate, as seen above, it becomes evident that a high fertility rate calls for a high growth rate in production and services. They also point to the prevalence of those types of investment or consumption patterns which curb productive investments. Whatever be the development policy and model followed, when the population growth rate reaches a certain level it is hard not to consider population growth as an essential, if not the determining, factor of policy and economic growth.

Table N° 3 : *STRUCTURE OF TUNISIAN POPULATION BY AGE-GROUP (1975)*

Age group	% of population
0 - 14 years	43.7
15 - 64 years	52.6
65 years and over	3.7

It is possible to respond to this argument by reversing the argument itself : while conceding that there will be immediate problems and admitting that there will be a difficult transition period to go through, it could be argued that once this young population reaches an active age it will represent a source of wealth and production for the nation. This argument should be seriously taken into account and in some instances may be perfectly valid. However, it should never be seen in absolute and unconditional terms. It should be weighed in terms of the country's natural and human resources, and the possible rates of growth in production. As we have already said it is true that this growth rate depends on the development approach and policy followed. Nevertheless, when the population increases beyond a certain defined level, however favourable the production growth rate might be, it still holds true that the demographic situation creates economic and social problems. Development in production presupposes the existence of a capable labour force, but the mere existence of a labour force does not create employment. The creation of employment does not spontaneously coincide with a population increase, and moreover it is not always possible to satisfactorily harmonize both aspects. One can say therefore that an increase in the working-age population raises the problem of creating enough job opportunities to employ them. The Tunisian leaders rightfully consider that such a situation already exists in Tunisia and will continue to do so, as has been shown in the final report and particularly in the global projections presented in Volume I of the proposed Vth plan of economic and social development.

The growth in the number of job-seekers far exceeded the estimates of the IVth plan for two main reasons. First of all, the rate of retention at school was much lower than expected and secondly, there was a marked decline in the rate of emigration combined with an increase in the number of those returning from abroad. In addition, there was a significant increase in the number of women seeking jobs which was accompanied by a rise in the rate of feminine employment. Will there be a further increase in the number of women seeking employment ? As the report will discuss below, in a country like Tunisia which is heavily influenced by the Islamic civilization, the problem of women - her status and role in society is one of the most sensitive and difficult problems facing the elaboration of a population policy.

It has been estimated that during the Fifth Plan period (1977 - 1981), the working population would increase by 561,000 (i.e by 112,000 persons annually). Taking into account on the one hand, the number of persons over 15 years of age who will enter educational and other training institutions and, on the other hand, the probable rate of demand for female employment, it has been estimated that there will be a demand for 303,000 additional jobs. The projections of the Fifth Plan, however, only provide for the creation of 233,000 additional jobs of which 100,000 will be in the manufacturing industries alone. Perhaps 20,000 additional jobs can be created by developing 37,500 ha of irrigation schemes and by better management of the actual schemes. Despite the economic and financial efforts so far made under the plans, a number of difficulties and uncertainties persist.

Indeed, the average annual growth rate of the Gross Domestic Product (GDP) should reach at least 7.5 % in order for this type of development plan to be feasible. (It may be noted in this context that although it was expected that the GDP would increase at an annual rate of 6.6 % during the Fourth Plan, it actually reached only 6 %). The investments during the V Plan should reach 4,200 million dinars (1) and the exports should increase at an annual average rate of 9.5 % in volume and value (if prices remain the same). However, if the imports increase at 5.5 % in volume, it will represent 11.5 % in value at current prices which would result in an increased trade deficit (264 MD in 1976 and 457 MD in 1981). The development policy which has been adopted strongly encourages productive investment favourable to the growth of employment opportunities? Despite varying opinions as regards the interrelationships between population growth and increase in production and employment, one has to agree that an increase in or even the maintenance of current rate of population growth would create serious problems for growth in production and employment. This is the reason why the proposed Fifth Plan suggested the adoption of population policy based on the hypothesis of reducing fertility which, by the end of the Plan period, would reduce the crude birth rate to 33 ‰ and the annual number of births to 212,000.

---

(1) One dinar equals approximately 11.10 FF or a little more than US dollars 2.50.

But a very high population growth does not create only economic and social problems. Besides the economists and the sociologists, the psychologists underline the need to examining the effects of population growth not only at the national level, but at the level of the individual and the family and draw attention to the possible consequences of multiple undesired pregnancies on the woman, the couple, the children's development and the heavy burden of caring for a large family. The problems and difficulties affecting the society at the macro level have a profound effect on the family unit, where these problems are often dramatically felt as it involves providing the children with an environment suitable for their physiological and psychological development and education.

II - POPULATION POLICY OF TUNISIA AND THE ROLE OF THE NATIONAL BUREAU OF FAMILY PLANNING IN THE FIELD OF EDUCATION : THE ORIGIN OF THE PROJECT

As we have already mentioned, the Tunisian leaders very soon became aware of these two essential, interrelated problems and they rapidly sought to find solutions. Three important measures were proposed :

The *first one* was provided by the Code of personal status. Issued on 13 August 1956, four months after the first government of independent Tunisia was formed with Habib BOURGUIBA as President, the code abolished polygamy and repudiation. By setting up new regulations for marriage and divorce, it constituted the starting point of a social revolution which was to extend to many other areas and set forth for the first time a general population policy.

The second was a coherent set of legislation, more directly related to this policy. Only some of the major ones will be mentioned :

– the 14 December 1960 law limiting the family allowances to the first four children. Article 52 (as modified by law N° 63 - 26 of 15.07.1963) stipulates, that : family allowances shall be provided to salaried persons working in Tunisia in establishments or professions listed in Article 34 ; starting with the first dependent child living in Tunisia ; they are only provided for the salaried person's first four children or those adopted by him or under his legal care and insofar as they are his dependents ;

– the 9 January 1961 law authorizing the importation of contraceptives and family planning information ;

– the statutory order of 20 February 1966 setting the marriage age at 17 full years for women and 20 years for men ;

– the 1 July 1965 law legalizing abortion during the first three months of pregnancy, beginning with the sixth child. The 26 September 1973 decree modified the text as follows : The interruption of a pregnancy should be carried out in a hospital, or a medical establishment by a doctor in legal exercise. After the first three months, the pregnancy can be interrupted only if the mother's health or psychological state risks being compromised by the pregnancy or if the child to be born risks a serious illness or infirmity.

– The interruption should occur after the medical practitioner or the doctor responsible for the said interruption writes a report.

A third measure was the adoption of the "*National Programme of Family Planning*" in 1964. It was first placed under the responsibility of the Secretary of State for Public Health, and then under the National Institute of Family Planning and Maternal and child care until 23 March 1973 when *the National Bureau of Family Planning and Population* (1) was created. The programme included a two-year experimental phase which ended in 1966. As a sign of his continued support for this policy, President Habib Bourguiba, together with eleven other Heads of State, signed the Declaration by the Heads of State on Population at the United Nations in 1966 and gave the programme the impetus necessary to start the operational phase.

As this programme gradually developed, the project promoters became aware of its potential role in *educating* the youth, particularly those completing secondary education. As of 1969 the IPPF (2) organized a lecture on sex education for the youth. During the same time several teachers, including Mrs. Dordana Masmoudi, the principal of a secondary school, realized that their students' felt needs could only be answered by tackling the affective dimension of sex education treated in a broad perspective. Mrs. Masmoudi who gathered together a number of colleagues supporting this view has continually played an important role in this domain. This concern with population problem and interest in *population education* shown by different groups led to the creation in January 1972 of a Committee to look into this whole issue. The committee which was jointly established by the Ministry of Public Health and the Ministry of Education submitted its report in May 1972. It recommended that Population education, which had been neglected until then, should not be imparted through separate courses to be given by specialists, but it should be taught by secondary school teachers who would be given suitable complementary training. As a first initiative, themes about sex education and venereal disease were introduced into the natural science programmes. Following the publication of the report, starting in June 1972 the on-going experiments and those which were then launched in several secondary schools in the country were to draw their ideas from the Committee's work ; information sessions followed by debates were to be organized from June 1972 to June 1974 for the students.

---

(1) "L'Office National du Planning Familial et de la Population (ONPFP)". In this text the French abbreviation has been used throughout for purposes of clarity. (Translator's note).

(2) International Planned Parenthood Federation, London.

A new phase had started with the creation of the National Bureau of Family Planning and Population which was then given the task of directing the National Programme of Family Planning. The general goals were redefined and the activities were reorganized ; in order to understand the origin and development of the population education project, these two points should be taken into account.

The Tunisian leaders and the Bureau Director showed remarkable insight in realizing that the programme should not be limited to the teaching and dissemination of contraception methods. It was recognized that the generally accepted religious beliefs, the prevalent norms and values as they are interpreted and understood by the people and the commonly found customs and ideas of the Tunisian society are such that the implementation of such a limited programme would not only encounter serious resistance from the general public but also provoke negative reaction unless a serious effort is made to obtain the support of the mass of the people by linking the objectives of the programme with those of education. This was the reason underlying the creation of a large Division of Promotion and Education, attached to the Medical Division and the Administrative and Financial Division. Although education is understood in its more significant and wider sense, in keeping with the general goal some topics are emphasized more than others. Although the interrelation between population policy on the one hand and development goals on the other has not been completely disregarded, it was felt that it cannot constitute a suitable basis for obtaining public support and favourable public opinion. Therefore the Bureau's first educational task was to clarify many of the currently held erroneous ideas and in particular to clearly separate the following ideas which are often confused in people's mind : contraception and sterility ; fewer births and male virility ; and most importantly, birth regulation and birth limitation. It was then possible to explain that the population policy does not aim to more or less forcibly reduce births but that it attempts to provide the means that would enable people to freely decide on the number of births or their spacing. The strategy adopted thus puts emphasis on the policy's humane features. It underlines the fundamental right of every individual to direct his own life and its concern to provide him with the necessary means. It aims at creating among the parents an awareness of the problem so that they can assume their responsibilities with a full knowledge of the consequences. Mr. Mezri CHEKIR, the Bureau's Director General, has increasingly emphasized the "ethical and human value of planned parenthood" and its contribution to individual and family welfare, and to mother's and children's health. Thus it is possible to show that the educational action is based on a *philosophy which places great value on harmony among family members and on the welfare of each individual member.* A philosophy which is consistent at least on this point with the religious belief of the people. Indeed several texts in the Koran refer to the responsibility of caring for children and bringing them up properly ; several others emphasize the necessity to continually seek to improve the condition of man and the quality of life.

This mass education is intended not only for adults, but it also extends to schoolchildren and youth. Indeed, ever since its creation, the Bureau has shown interest in the youth in various ways. By providing material and educational resources, it has supported the new experiments as well as those already under way in the different secondary schools. These will be referred to later in this report. In May 1974, the Bureau took part in a study day focusing on sex education, contraception and preparation for married life, organized for the seventh year students of Montfleury Secondary School (Lycée). Thanks to the Director General of the Bureau, the 1972 Health and Education Ministries Joint Committee's file was re-opened, thereby enabling Mrs. Masmoudi's experimentation at the Montfleury Secondary School to continue and develop along positive lines.

Finally, the Agreement on a Population and Family Planning Programme signed on 10 April 1975 between the Tunisian Government and the United Nations Fund for Population Activities (UNFPA) drew heavily from the work and recommendations of the Joint Committee. This shows the significant role which the Committee has played in promoting population activities in the schools.

Given the context, the nature and the goals of these activities, it was decided, with the Bureau's agreement and support, to confer the task of *population education* to the educators themselves, even if they were to be aided by outside assistance.

The first problem facing the Bureau was to see how it could communicate with a vast audience. It had to set its priorities before developing a strategy. It adopted a twofold strategy based on two distinct programmes, on the one hand within the school sector, and on the other, in the out-of-school sector, this latter geared essentially for the adults as a short-term programme. The Bureau also planned to multiply its impact by using the most relevant means in each sector : organized industry, agriculture and the unorganized sectors.

In the *school sector*, the educators had to be approached directly in order to avoid the risk of having the project rejected. This decision can be more easily appreciated if one first looks at the many reasons leading up to it. As it was pointed out earlier this approach was inspired by the joint committee's work, and this committee had opposed the idea of having population education introduced as a new discipline to be taught be specialized teachers or outside specialists. Besides, any argument that links contraception policy to a philosophy inspired by family harmony and welfare is not always convincing to the general public and to the many religious leaders whose support was required for successful implementation of the programme. For it would be possible and easy for them to present in defence of the same harmony, other opposing ideas that are embedded in the customs and people's minds and hence all the more steadfast. Therefore, in order to be able to convince the public more effectively, it was necessary to

Unesco's collaboration in developing the population education programme

Unesco, as an advisory organization, has given technical assistance throughout the development and progress of the Tunisian project in two ways: Unesco worked together with the national leaders to clarify the concepts and develop an appropriate methodology; it also provided some resources so that the goals which had been set could be reached. This support was provided through various missions by the staff members of Unesco or by the Regional Bureau of Education for the Arab States or by consultants recruited by the Population Education Section. Their task was to help the Tunisian authorities in implementing the project, in developing curriculum and teaching materials and in planning the subsequent phases of the programme. Similarly Tunisian leaders and teachers engaged in implementing the project undertook visits and study trips to the Headquarters of Unesco in Paris, which provided further opportunity for fruitful collaboration at all levels which has been beneficial both to the Tunisian programme and to the national projects in the Arab States region.

III - THE PROJECT'S PHILOSOPHY AND OBJECTIVES : DEVELOPING THE CONCEPT OF POPULATION EDUCATION

The mere fact of placing confidence in the teachers and the school system did not mean that all the problems were solved. Considering that one of the objectives of population education is the introduction of population and related concepts into the school curricula, one may ask the question whether the general framework and the conditions in which this subject was to be taught would not heighten the difficulties. It is worthwhile examining these questions, for the efforts made to avoid or overcome the obstacles, show how the concept of population education developed in Tunisia.

If sex education intended for adult audiences meets with resistance based on the society's customs, prevalent norms and attitudes of mind, interpretations of traditional value systems and numerous widely-accepted ideas whose roots go far into the obscure past, then it is difficult to believe that these same adults - as parents entrusted with family education or as leaders respectively responsible for moral, religious and civic education - would accept without putting up even greater resistance this kind of education for their children, especially the girls. This attitude of non-acceptance or even simple reticence would create, with reference to the teachers and the school an atmosphere of distrust or suspicion which would be entirely new in Tunisia. It would be particularly disastrous because it would mean the loss of a doubly-precious sacred trust which the school system continually needs in order to function and which is required even more in order to teach this topic so imbued with the social, human and emotional values. Wouldn't the school system then be seen as being misled or manipulated by some people who, taking advantage of the school's positive image, would use it as a tool for their own ends or as a screen to hide their real motives ? Unless the school system itself is viewed as an accomplice. In such an atmosphere any attempt to advance beyond the Bureau's basic and mass educational programmes by linking in the school curricula, population data with economic consequences would run the risk of being regarded as an expression of motives which were otherwise hidden until then in order to succeed in its policy : intended either to forego all the moral and spiritual values in favour of economic ones or to erroneously portray population growth as the fundamental or even sole cause of under-development. Rather than encouraging through this education a strong personal commitment based on a more rational and deeply nurtured conviction, the school would risk doing just the opposite and thus again damage people's invaluable trust in it. On the other hand the difficulties are of a different nature but are no less important. Although population education does answer some of the adolescents' most intensely-felt needs, it nevertheless also holds true that these needs project a strong emotional charge on to the subjects treated. This situation can become explosive if the educator is unable fo find a suitable psychological and pedagogical approach to render it harmless. What conception of population education could be used to hopefully avoid these dangers, remove these pre-conceived opinions and solve these problems ?

Integrating population education into the natural science courses obviously provides an initial solution. As we have shown above, the work of integrating issues related to population and human sexuality was started by rewriting the natural science syllabus.

As a result of following this approach, there was no need to introduce a new discipline ; by relating these issues to natural phenomena it was possible to give rational explanations ; and, thanks to these rational explanations, it was possible to explain in a serene, intelligent and convincing way the practical recommendations and the rules of application that are planned to follow from the introduction of population education.

It cannot be denied however that solving the problems related to the study of certain aspects of sexuality will not give rise to new problems. Some of them will be in the affective domaine, whereas others closely related to them - will be of a spiritual nature and will challenge the norms and values. Indeed, the knowledge about reproduction and contraceptive means will obviously raise questions which have not been answered by this new knowledge : for example, questions will come up regarding the equilibrium and harmony of the personality of the individual, of the family or the couple in terms of attitudes to adopt first towards this new knowledge and consequently towards the choices and decisions possible. A true population education should deal with these issues, otherwise it will fail in fulfilling its aims. Obviously these attitudes and decisions should be considered and evaluated in relation to the social and cultural system and values. Population education would fail in its mission if it does not deal with the very social, economic, cultural and human problems that it has played such a major part in bringing to light. If the natural science courses include population education, then they should explicitly lead on to other disciplines which should just as explicitly take over from where the teaching of biology stops. A chain should be created linking together scientific training, civics and family, moral have the time and the resources that would be required to carry out a well thought out and extensive educational programme. We have seen earlier that this was important to an even greater extent because any new argument linking demography to economics was likely to strengthen further the suspicions on the part of the public from which the Bureau, despite its efforts, had not yet been able to free itself. Under these conditions there was a strong possibility that if the personnel from the Bureau were to intervene directly in the schools, the general public would misinterpret and ill-accept their presence. The school which enjoys the confidence of the families in Tunisia could not accept the Bureau's presence without running the risk of losing that confidence. Because the people have confidence in the school and because the school has the resources to provide a thorough and comprehensive education, *it appeared to be the logical institution which should be given the task and responsibility of this innovative training.*

The *secondary schools* were chosen as the most logical place to introduce population education. There were several interrelated factors which led to this choice and strategy. Indeed, whereas it is difficult to reach several million inhabitants both rapidly and effectively, by a basic education appropriately adapted to a wide variety of learners, it is much easier to provide the same to the 200,000 secondary school students who by their academic training and life style constitute a relatively homogenous target-group. Given the extensive network of secondary schools which cover the whole country, including both the rural and urban areas and the northern and southern regions, this relative homogeneity does not however eliminate the diversity of the national population groups. Also the student population numbering 200,000 which is large in itself is relatively more representative than it seems to appear at first sight. This is so for three main reasons. Firstly, half of the Tunisian population - which reaches a total of 5,600,000 - is less than 20 years old. Secondly, 34 percent of this student population is composed of girls which as one can imagine is an important factor which will be discussed later. Thirdly, these students represent not only a link between primary and higher education by constituting a source of teachers to the former and students to the latter but also they, particularly those in the second cycle, are at the threshold of playing their roles as citizens, an active role in population education and related activities through the families they will found and the influence they will exercise over their children. Moreover, in Tunisia, the secondary schools serve as the breeding ground for the future middle and high level cadres, who by their functions and status, will exercise a real influence on the political life of their country and their communities.

In addition to these sociological and pedagogical reasons for providing adolescents with a more comprehensive education relevant to the realities of their social environment, there are other reasons more related to adolescent psychology. Their characteristic curiosity and emotional needs motivate the adolescents to seek out this kind of education. This motivation is further strengthened by the problems arising in the society, in the family unit or between the couple as a result of the man-woman and boy-girl relationships operating within the context of their culture. Thus, in order to satisfy their urge to learn about their own bodies and to understand its transformations and to find answers to the questions about the couple and their life, the adolescents will be eager to get all even the wildest information. Why not give them the knowledge which they seek rather than abandoning them to run the risk of getting false or incorrect information ? Desirous as they are to receive this knowledge they are more fully prepared both intellectually and culturally than many others to assimilate and benefit from it and to develop their own attitudes towards life. The secondary school teachers are also better equipped to receive the complementary training and are in a better position, especially if the programmes are taken into account, to take part in this education. Last but not least, thanks to the outstanding and influential work done by some school principals and to the experiments carried out at the Montfleury secondary school among others, the impetus had already been given to this education and the groundwork already done.

Under these circumstances, it is not surprising that the population education project was transferred on 5 December 1975 from the Ministry of Health, which nevertheless continues to manage the finances, to the Ministry of Education which is responsible since then for conceiving, organizing and developing the pedagogical aspects of the programme. Even before that date, the teachers who were to form the *core of the central team* of the programme of "Integration of Population Education and Family Planning Education into Secondary Education" had already been given leave from their teaching posts and brought together in the Ministry of Education. Thus, in 1974, Mrs. Masmoudi had been designated as an attachée in the Executive Office of the Minister which enabled her in April 1975 to become the head of this team. The first sensitization seminars held during 1975 also provided an opportunity to choose the twelve secondary schools where population education would be experimented with during the 1975 - 1976 school year. At the same time a decision was taken to request complementary financial assistance from UNFPA which on being approved would allow the on-going project to be enlarged and further developed. But without waiting for the approval of the request, the central team started to develop and set up a system in line with the goals assigned to the Ministry of Education so that the project could then be experimented.

In order to understand how these goals were defined it is necessary to understand first the basic philosophy underlying population education which provided the guidelines to experiment the project in the secondary schools. This conception which is largely inspired by the concepts and the philosophy of the Unesco programmes also draws from the earlier reflexions and experiences that took place in Tunisia itself. Our analysis is a direct continuation of earlier experiments and by developing them in some detail, an attempt is made to draw some general conclusions.

and religious education wherein each discipline mutually supports and reinforces the others.

But the chain would not end there. To understand this one only needs to examine the manner in which population education should be conceived when it sets out - in order to more successfully reach its objectives - to analyse the relationships between population growth and economic development and to clearly point out that the population factor is in fact only one of several factors contributing to development or under-development. By presenting an analysis of the different factors and their interactions, population education will be in a better position to logically demonstrate that under certain conditions the population factor can truly be one of the determining factors, whatever the development model and whether the rate of population growth is too low or, as is the case in Tunisia, too high. In order to be more complete and to prevent the pre-conceived notions from gaining ground, population education should devote itself to clarifying the human, family and social causes and consequences of under-development. In this manner, population education will be able to validly state and then deal with the population problems concerning not only the overall demographic situation of the country but also those concerned with the many varied concrete phenomena affecting the different regions in diverse ways. After dealing with these general and specific problems from a statistical and quantitative angle, population education should be able to perceive and analyse their human and social aspects. By virtue of these two approaches, population education broadens the scope of demography as a subject matter for school use. Even if only essential aspects are taught, however, demography should still provide the starting point and foundation on which population education can then build. The distinct interest of population education is precisely that it brings out as clearly and objectively as possible the true and reciprocal links between the demographic conditions stated in mathematical terms and the qualitative conditions of people's daily life expressed in terms of improved social welfare. Thus the problems arising from the application of population policy at the individual level would be linked to those facing the different national communities and the nation as a whole. Last but not least, population education helps to link the life of each individual to that of the nation, thereby contributing to the harmony and mutual fulfillment of both while seeking to prevent that either one becomes the sole concern.

This awareness and analysis of the *reciprocal cause and effect relationship among the different factors* composing a population policy and an economic and social policy leads to the idea that population education should not make people believe that development solves all problems either now or in the future. This is an important consideration if population education were to more satisfactorily remove any suspicions and pre-conceived ideas about it. On the contrary, the task of population education - one which adds greatly to its interest and worth - is to show that whereas the population situation presents serious problems (its growth, structure, training) for development likewise, development, in turn, has created or will create no less serious problems for the population. Indeed, a number of problems instead of disappearing might take on new forms, and continue or even become more serious : for example the unequal development of the different regions in the country provokes internal migrations and all sorts of imbalances which in turn produce this disparity and these migrations. None of these phenomena and the new problems can be considered separately. This strenghtens the need to conceive population education not as a new additional discipline but as something that can be integrated as comprehensively as possible into other disciplines or at least with the closest links possible. Development can also be a source of conflict between cultures and civilizations. An example can be taken from the expanding tourist industry, certainly one from which Tunisia should benefit. But it is also well-known that under certain specific conditions, tourism leads in a direct and personalised way, to encounters between cultures whereby conflict situations with respect to norms and values arise between the old and the new, the traditional and the modern. Especially in Tunisia these problems are affected by other problems such as seasonal employment, air and water pollution, destruction of vegetation and sites caused by the heavy influx of tourists which varies according to the seasons and localities. Many similar serious problems or other more specific ones are created by the development and expansion of industrial enterprises ; for example those in particular produced by the density of population in urban areas and the changes in the status and social roles, especially the status and role of women in relation to those of men.

Thus although it includes demography and sex education, population education is clearly not limited to these two domains alone ; it attempts to bring together the *internal reciprocal linkages and relationships between disciplines based on commonly-shared elements. Without any doubt the key words of this educational philosophy are "integration" and "inter-disciplinarity".* From a practical standpoint therefore this approach did not call for the introduction of new disciplines and pre-service training programmes for specialized teachers who would then teach separate courses. Rather it required the in-service training of teachers. In line with the basic conception of population education, this training would be directed both towards broadening the scope of each discipline, to include not the domains outside its realm but those aspects which will enable it to seek linkages with what is most profound and complex in other disciplines and towards training in establishing communication and dialogue with other teachers. Finally, when properly understood and respected, comprehension and integration are just the opposite of a hazy confusionism and weak eclecticism. The refusal to create a distinct new discipline with a special function did not mean that no new knowledge would be provided. The teachers are to be provided with such new knowledge as are either within the sphere of their own disciplines or in neighbouring or seemingly-foreign domains. Valid internal communication between the various disciplines cannot become established - and the accompanying pedagogical communication cannot function smoothly - until adequate access to each discipline has first been provided to the teacher. Therefore specialized knowledge is required in order to teach population education and the intervention of experts and specialists is needed to give this training. The delicate and complex nature of this training is no doubt due to this two-fold requirement, but it must be respected or otherwise population education will become distorted or fail to reach its goal. Using specialization as one method among others for integrating population education - in itself an extremely arduous task - appears to be contradictory to population education's very nature. But one of its main interests lies in protecting secondary education from excessive specialization and compartamentalization which could prove damaging, while at the same time fostering the development and the broadening of the knowledge base in the relevant disciplines. The application of this approach does not make the serious nature of the knowledge become dry and less appealing to the students.

On the contrary, by echoing the students' inner feelings while at the same time linking the school with the community and the adult world outside and by giving the students a *sense of the unity of knowledge and by showing the way knowledge is linked to action*, this approach should help them to become increasingly interested in their studies. All these features seem conducive to helping the students become responsible adults who would be capable of showing greater maturity when faced with family or social problems.

We shall now examine how this general conception has inspired, and to a great extent predetermined, the system which was developed in order to implement the project. We will also find, however, that this system left room for choice, imagination and invention which has led us to wonder whether population education's initial conception would have been adapted to reality if the unplanned and unexplicitly desired innovations had not been incorporated into the project. Despite the fact that they were not planned in advance, these innovations are nevertheless extremely important; they may even influence and change the spirit and structures of the entire educational system.

PART TWO

DESCRIPTION AND ANALYSIS OF THE PROJECT IMPLEMENTATION

I. THE MAIN AGENTS OF PROJECT IMPLEMENTATION : THEIR FUNCTIONS AND ACTIVITIES

1) The Central Team

Almost all pedagogic activities related to population education have been conceived and largely organized and directed by a *central team* whose role has been and continues to be extremely important in this regard. Both by its status and composition, the central team undoubtedly represents one of the most original features of the Tunisian project. It is therefore worthwhile to begin the analysis of the project by describing the central team.

First of all, it is a small team composed of only four persons, all national civil servants. It has little logistical support : one secretary, one documentalist and one driver for the only vehicle placed at the disposal of the project for the rather frequent field trips by the team members. The premises are provided by the Ministry of Education. The second essential feature is that the team is not composed of specialists but of secondary school teachers recruited by the team leader because of their active participation in the already existing population education experiments at the Montfleury secondary school. Besides these four people (1), the permanent consultant (2) who is a specialist in psychology can be considered as constituting a part of the team.

A third significant feature is that although the team is located in the premises provided by the Ministry of Education, it is not attached to any of the departments dependent upon this Ministry. The team comes directly under the authority of the Minister of Education through the intermediary of the Project Director who is also an Attachée to the Cabinet of the Minister. This lack of precise status proves that this team does not consitute in any way the beginning of a new Ministerial Service or Division.

The fourth aspect - and to our mind the most important one - is that the project is characterized by the almost total pre-eminence of functional relationships over hierarchical relationships, with the exception of the leadership of the project and its link to the Minister. The team itself is structured on the basis of functions rather than hierarchy so as to give each member equally important functions, while maintaining some flexibility so that the functions do not become reserved territories and zones of exclusive authority of the members. The same approach is followed by the central team in its relations with its field collaborators, the four *regional coordinators* (Tunis, Béjà, Sousse, Sfax) who in turn collaborate in like manner with the secondary school coordinators.

The central team is assisted by an *"Advisory Committee"* created at the end of 1977 and considered competent in the area of strategy and evaluation of operations. Its main function is one of assistance, and not control; its role is not to direct and decide but to advise.

The Advisory Committee meets twice a year and includes permanent members who are the main agents of the system and other members annually selected from among these who take part in conceiving and operating the project. The permanent members are : the *Directrice* of the project, the members of the central team, the regional coordinators, the representatives of the concerned Departments of the Ministry of Education - namely, the Departments of primary education, secondary education and curriculum - and the four Regional Delegates, the veritable representatives of the Minister in the regions for secondary education, whose role and importance, as we will discuss later, should not be underestimated. The non-permanent members are : three inspectors, three teachers, and four principals of secondary schools.

The diagram below (N° 1) shows all these functions and their interrelationships.

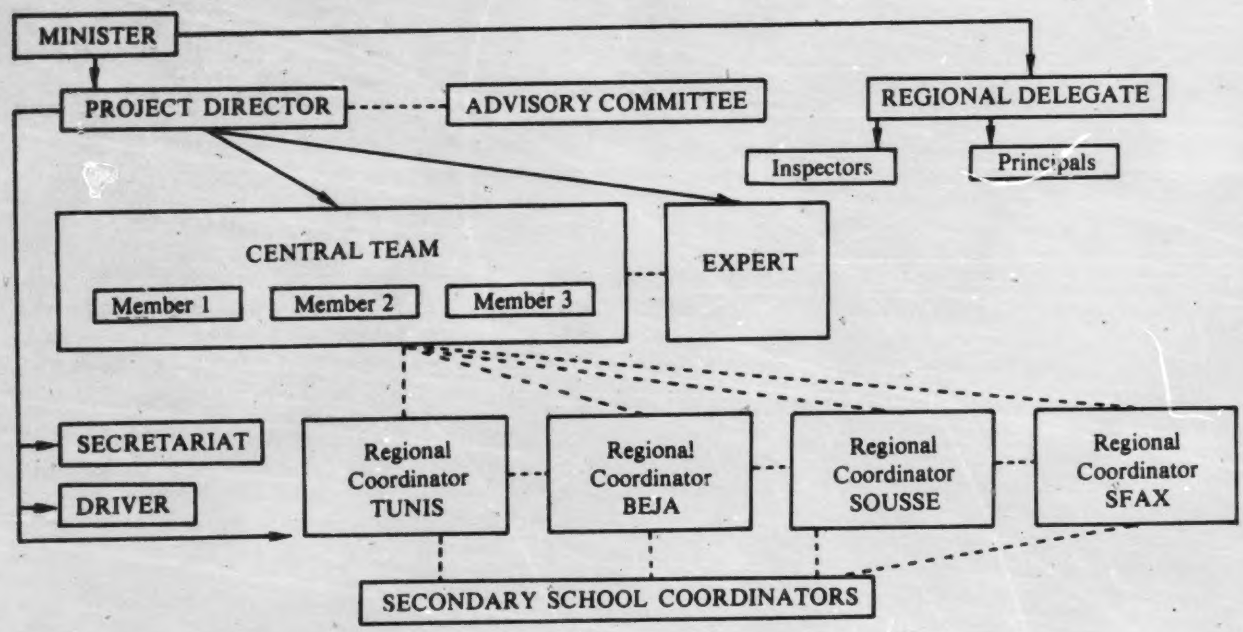
We shall now examine the team's different functions. The central team has set up in its office an Information Centre for all types of educational resources (written documents, slides, films, etc.) which can eventually be used for population education. It is used as a clearing-house for the collection and dissemination of certain of the materials which at present consist mainly of the written documents. Moreover, by designing and producing pedagogic materials, the team contributes to enlarging the stock of available ressources. Some of these materials represent trial efforts and research results which, after experimentation, will be used to write "leaflets" dealing with some of the main aspects of population education. The first three leaflets will be concerned respectively with population education in relation to biology, to norms and values and

---

(1) Mrs. Dordana MASMOUDI, Miss Naïma KOCHTANE, Mr. Abdelhafidh MEJRI and Mr. Hedi BOUHOUCH.

(2) Mr. Tahar EL AMOURI.

Diagram N° 1



——Hierarchical relationships
- - - - -Functional relationships

note : the *Directrice* of the project, the Central team members and the regional coordinators together constitute the collective leadership of the project.

to demography and economics. The central team helps in managing and administrating the project as well as in organizing and overseeing its activities. It is responsible for preparing the annual calender of seminars and study days and for organizing them. It programs the distribution of films to be shown and has the task of obtaining them on rent or loan at the proper time. The team also recruits and pays the remuneration of experts who participate in the seminars or study days organized for the inspectors, school principals and teachers. It assists the regional coordinators and secondary school coordinators whose tasks will be described below. The team participates directly in the seminars and workshops where one of the team members leads the discussions, whatever be his or her specific function at the central level.

The team is also responsible for carrying out the evaluation of the seminars, information or study days and for making a general assessment of the project's progress and the results obtained in population education. Evaluation occurs mainly at three different levels : at the first level, the information collected directly at the seminars is analysed and organized into a coherent form. At the second level, the teachers' attitudes towards population education are systematically studied by the use of a questionnaire. At the third level, some research programmes opening onto broader perspectives are set up : for example, the 1976-1977 longitudinal study of the attitudinal changes towards family and social life and the change in daily behaviour of the students exposed to population education in comparison with a control group.

In summary, the central team has five functions : promotion, organization, management, evaluation and training.

2) The regional coordinator

The regional coordinator also plays a decisive role, although it varies considerably depending on the coordinator's personality in developing population education and in enabling it to function. This is due not only to the variety of functions that he is expected to perform and the services he can render but also because of his key position within the sytem. Indeed he is at the same time the direct and major link of the central team, its representative in the region, and for the Regional Delegate for Secondary Education, he is the privileged spokesman of the project. As mentioned previously, the Regional Delegate occupies a dominant position within the Tunisian educational system. This is so for two reasons : although he works closely with the Central Departments of Secondary Education as well as that of Curricula, he is not under their orders. He depends directly on the Minister and hence in many ways he acts as the Minister's regional representative. Besides, because of his authority over the Centre of Research and Pedagogical Documentation (CRPD) and through the pedagogic and administrative services under his control, the Regional Delegate enjoys a significant amount of logistical support. This attitude of the Regional Delegate towards population education and his working relation with the Regional Coordinator influence to a great extent the latter's actual functions and the type of assistance he can provide. This two-fold relationship on the one hand with the central team and, on the other hand, with the Regional Delegate, conditions the nature of cooperation with the CRPD, the school principals and the local community where he will attempt to find ideas which will serve to develop relevant educational resources necessary for initiating and implementing the activities of the project. The activities related to the maintenance of good working relations, however varied and important they are, do not constitute his only function but indeed they enable him to perform all his other tasks more satisfactorily. These tasks include : planning the activities related to the project in the region and its secondary schools; analysing the programme activities in order to foresee what materials are required and to provide them at the proper time, and requesting changes if needed and coordinating them ; keeping a record of the regional activities in population education so as to analyse what progress has been made and what still needs to be done at the regional level.

As Diagram N° 2 below clearly shows, the regional coordinator's *tasks are centered around two main lines of activity* : to provide the educational resources and the means to work; to disseminate the results obtained once the work has been evaluated. Considering the variety of functions that the coordinator performs, one can well understand that the teacher recruited to this job is employed on a full-time basis.

3) The teacher-coordinator

The teacher-coordinator helps provide the link between the regional coordinator and the activities in the secondary school and its personnel. His tasks at the secondary school level are the same as those of the regional coordinator at the regional level. The coordinator is a working-teacher involved in the project in a school where the principal after participating in a sensitization seminar volunteered and was accepted to introduce and develop population education in his school. Once the school principal's candidature has been accepted, about ten secondary teachers are then invited to a sensitization seminar at the conclusion of which a teacher-coordinator is designated. The coordinator is expected to have organizational and human relation abilities and an interest in areas of knowledge beyond his own speciality, as population problems are related to a wide variety of fields such as biology, demography, economics and culture. It is also considered important for the coordinator to be at least bilingual (Arabic and French) as most of the documentation on these problems is in French (or in English) (1).

The teacher-coordinator's most important role like that of the regional coordinator is in the field of human relations. In this respect, his main task is to ensure that the teachers who after attending one or more sensitization seminars are working on the project function smoothly as a group within which continual dialogue takes place. He should also promote communication between the group and the regional coordinator, the school principal and the other teachers who are not yet involved in population education activities. However, his role is not limited only to human relations. He is required to lead the discussions of the "Education and Population" Club before he could decide and assign other teachers, according to topics, to lead the discussions. He should seek out and obtain the essential logistical support for these activities of the Club and then help set it up at the proper time. He is also responsible for preparing evaluation sheets for each session and overseeing that they are filled in correctly and for writing a monthly report providing the following information each under a separate column : the names of the coordinator and the establishment, reporting period and the date of each of the activities carried out, the grades and numbers of pupils participating with clear distinction being made between boys and girls, the nature of the activity, the topic dealt with, the group leader, the guest speaker or the outside expert, participants other than pupils if any, educational resources utilized, other observations.

For these services the coordinator receives a remuneration equivalent to two additional hours of teaching which are paid out of the Regional Delegations budget.

II – INTEGRATION OF POPULATION EDUCATION

1) Training educators

Sensitization seminars, workshops, information days

On a national scale, the central team organizes at Hammanet three main types of seminars: sensitization seminars, workshops and methodology seminars at a tourist hotel offering very good conditions for receiving groups at an extremely reasonable cost.

The sensitization seminars have been and continue to be the principal means by which population education is progressively introduced into the secondary schools in the different regions of Tunisia. These so-called "residential" seminars, bring together for three or four full days between 20 and 25 educators, all volunteers. The first of these seminars was held at Sousse in January 1975. It brought together the senior officials of the Ministry of Education and almost all the secondary school principals and inspectors as well as some teachers. The seminar had two objectives:

- to provide information concerning the population education project and,
- to sensitize and create sufficient interest among the school principals so that they would decide to have their school take part in the experimental phase of the project. Their first task would be to encourage a few of their teachers to take part in a sensitization seminar.

---

(1) Starting in the early seventies, population education has developed in the various parts of the world. A number of publications on population education, family life education and sex education have been edited in English, French and Spanish and in particular under the auspices of Unesco and its Regional Offices of Education.

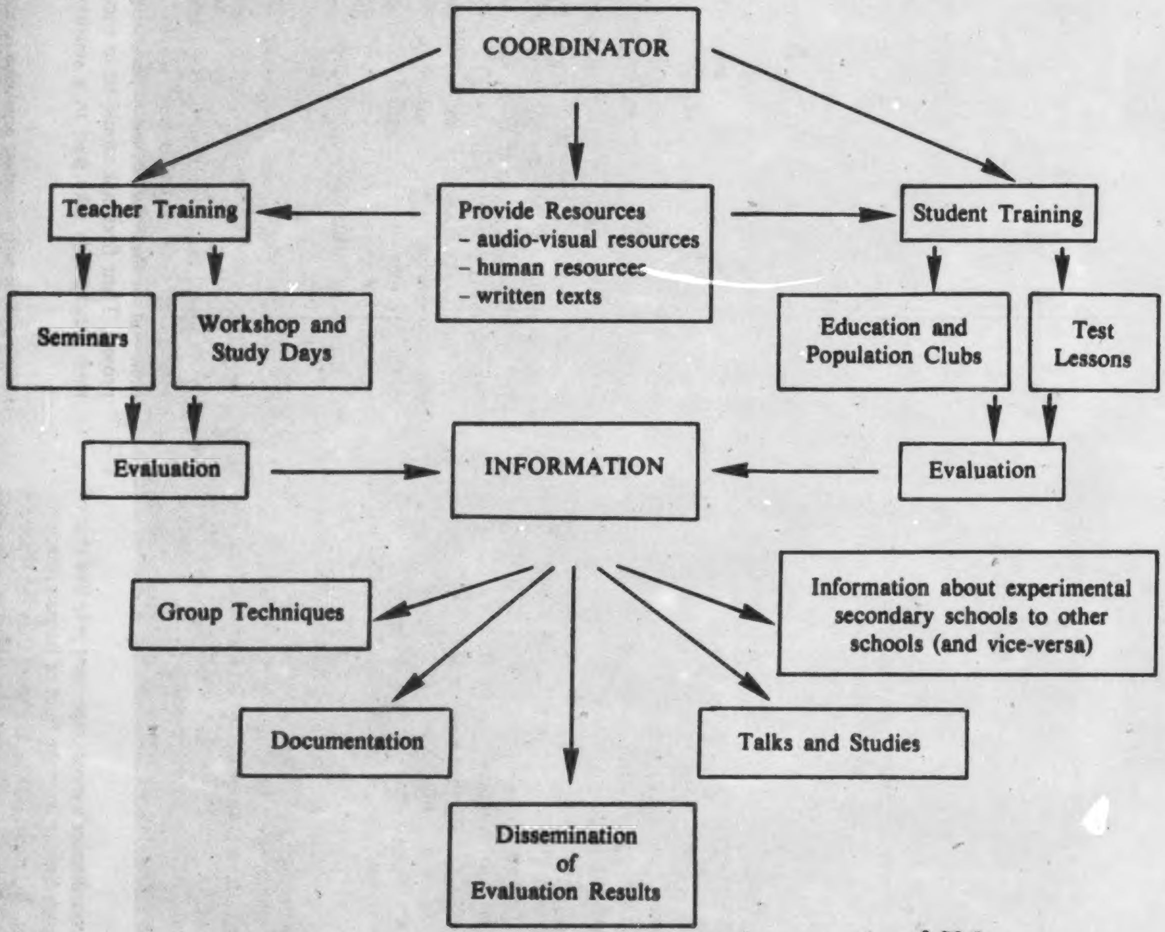

COORDINATOR
Teacher Training
Provide Resources
- audio-visual resources
- human resources
- written texts
Student Training
Seminars
Workshop and Study Days
Education and Population Clubs
Test Lessons
Evaluation
INFORMATION
Evaluation
Group Techniques
Information about experimental secondary schools to other schools (and vice-versa)
Documentation
Talks and Studies
Dissemination of Evaluation Results

DIAGRAM N° 2 : *ROLE OF THE REGIONAL COORDINATOR*

12 out of the 35 schools which volunteered to participate in the project were accepted: four from the Tunis Regional Delegation, four from Béja, two from Sfax and two from Sousse. As this first phase of the operation was intended to provide lessons for eventual nation-wide extension, the schools were selected on the basis of three main considerations:

Representativity of the school in relation to :

- the different types of Tunisian secondary schools (general or technical schools, co-educational or not, school size, bilingual or Arab-speaking);
- regional situation (rural-urban, north-south);
- varying socio-cultural levels (wealthy region - poor region).

Project activities were started in these schools following the participation in the sensitization seminars of several teachers from each of them. The nature and types of activities are described below. The basic outline of the project which has not undergone any fundamental changes since it started has enabled the progressive integration of 64 out of a total of 206 secondary schools into the projects. The distribution of the schools according to the regions is as follows: Tunis, 13 schools; Beja, 12; Sousse, 14 and Sfax, 25 (1). (See also Annex I). As of that date, 966 out of a total of 8,113 teachers (5,330 if only the directly related disciplines are considered) had been initiated and integrated into the project.

In order to prepare the teachers for the seminar, the school principal (occasionally together with the regional coordinator) explains to them its modalities, objectives and methods. The teachers who would be selected as population educators, at least a majority of them, should generally have a minimum of *two full years of teaching experience*, be responsive to innovative teaching methods and known to have good relations both with the students and parents and with their teaching and administrative colleagues. The group of educators thus selected should be representative of the school teaching population (in terms of age, sex, marital status, subjects taught) and should include one or two members from the school administrative staff (assistant principal, chief monitor, etc.). On the basis of the criteria described earlier, the secondary school teacher-coordinator will be named at the end of the seminar.

The sensitization seminars aim to attain several objectives. At the conclusion of a seminar, it is expected that the participants shall be in a position to:

1) broadly define the population concept,
2) identify and analyse the institutional goals of population education,
3) show tolerance towards other opinions and convictions that are contrary to his own,
4) discuss in a group the controversial or value-laden subjects (politics, religion, sexuality),
5) express freely and without inhibitions in a group discussion and allow other participants to express their ideas and opinions,
6) critically analyse his own beliefs and compare them with those of the group,
7) identify population themes in the syllabus of his own subject,
8) identify the processes of human reproduction,
9) enumerate the means that can be used to control fertility,
10) analyse the relationship between population and development,
11) briefly analyse the teaching methods used during the seminar and show the extent to which they can be adapted to the classroom or the Club,
12) detect the value system or systems underlying an attitude or decision concerning population.

Audio-visual aids are often utilized during the seminars. The aim is two-fold: on the one hand, create among the participants motivation to look for additional information and on the other hand, provide them with just enough information, so that on the basis of the motivation created, the work of the seminar may be continued by using not the lecture method but other pedagogic methods such as group techniques and role playing. The so-called "Philip 6 x 6 " is the most commonly used method.

The central team has felt that these methods, besides being well adapted to the training of adults and especially the teachers, are particularly suited to reach the objectives enumerated above. Indeed, it is hoped that during the seminars these methods would help the participants to become aware of the heterogenity of their ideological views, and yet be able to understand and accept the differences with tolerance. The clarification provided in some areas of knowledge - in which the participants might have had falsified or biased notions because of ideological prejudices - might help in eliminating dogmatism. The aim is to reduce without undermining the traditional values, those forms of dogmatism that are erroneously claimed to be based on traditional values, while at the same time preventing new forms from being imposed on the students as a subtitute. Our analyses of population education, as it is understood in the project's conception and in the Tunisian social and cultural context, will enable the reader to understand why this objective was included and given such importance.

The sensitization seminar generally begins with one or several initial lectures on the objectives and content of population education. Every day each new phase of the seminar starts with an evaluation session of the preceeding phase. These partial evaluations provide among others, an opportunity to make immediate changes, if need be, in the remainder of the seminar. These evaluations are added on to the final evaluation which takes place on the basis of questionnaires, the findings of which are analysed and put into coherent form at a later stage. An illustrative outline of programme and conduct of activities of a seminar of this type is given in Annex N° II

---

(1) In December 1978.

Each year a summary table showing the results of all the seminars is prepared. The sensitization seminars are organized quite frequently; during 1977 - 78 there were at least sixteen, ten of which were held during the first semester alone.

After the sensitization seminars come the *workshops* and *methodology seminars* which are generally held less often, at least for the moment. They use more or less the same procedure and methodology, differing from the preceeding type of seminars only in their content. The topic selected for a workshop usually encompasses several themes already discussed in the framework of "Education and Population" Clubs. Among the rather numerous themes (Table 4 gives the list of themes) those which retain the utmost interest and attract a large number of students and teachers during the Club meetings are selected for the workshop. The topics so far examined in the workshop are :

Table N° 4 : *STUDY THEMES*

I – BIOLOGICAL ASPECTS

Human reproduction :

- Anatomy and physiology of human reproduction
- The woman's sexual cycle
- Puberty
- Fertility and embryology
- Delivery

Contraception :

- Means of contraception
- Family planning

Nutrition

- Infant feeding and care
- Nutrition of the pregnant woman
- Lactation

Venereal diseases

Heredity

- Rhesus factor
- Hereditary diseases
- Consequences of consanguineous marriage

II – DEMOGRAPHIC, ECONOMIC, AND SOCIAL ASPECTS :

Demographic aspect :

- Key concepts of demography
- Population growth in the world
- The Tunisian population
- Poverty and overpopulation
- Natality in Tunisia and in the world
- Movements of population :
  Emigration
  Internal movements of population
  Tourism

Economic aspects :

- Key concepts of economics
- Planning
- Development and under-development
- Employment and Family allowances
- Employment and professional training
- Unemployment
- Agriculture, reclaiming desert land
- Emigration of Tunisian work force

Social aspects :

- Family and change in personal income
- Living conditions, architecture, housing
- Alcoholism
- Nicotinism

III – VALUES

Childhood :

- Psychological and emotional growth of the child
- The child and social welfare
- The child born out of wedlock

Adolescence :

- Psychological and social aspect
- Differences of education according to sex
- Timidity and its influence on adolescent behaviour
- Juvenile delinquency
- Relationships between generations and sexes
- Honour and virginity

Women :

- Women and their position within Islam
- Women at work
- Women and maternity
- Women and family planning

Marriage :

- Marriage and customs
- The couple's psychological preparation for marriage
- Love in marriage

The family :

- Islam and the family
- The relationships within the family
- The roles of parents and children
- The education of children
- Educational value of punishment
- Divorce
- The period of widowhood (sanctioned by customs or religion).

Adolescence (the status and role of the adolescent according to the religion, according to law and in the society),

Emigration of workers, internal migrations, (the rural exodus, urbanization, etc.), tourism and environment.

The teachers already sensitized to the project and who are very active in the school and in the Club activities are invited to participate in these workshops.

When it is decided to hold a seminar on one of these themes, the necessary technical papers are prepared. These materials which constitute the first drafts of the leaftlets are then distributed among the secondary school teachers. An attempt is also made to locate and obtain relevant audio-visual aids. The workshops are also held at the regional level. The same themes are taken up, but they might be selected according to the region's principal activity or problem (tourism in the Sahel, migrations in the Béja region). In each case the basic study, which is of a general nature, is extended and adapted so that it is applicable to local conditions.

Up to now, *objective-centered teaching* has been the dominant theme of the methodology seminars for several reasons. First of all, it increases the effectiveness of the sensitization seminars and workshops, where this pedagogy is usually applied. The main reason, however, as we will more fully explain below, is that objective-centered teaching has been chosen as one of the most convenient and efficient ways available to the teachers to integrate population education into their course work.

Besides the seminars, *information days* are frequently held at the regional level and occasionally at the national level. Until now they have had two main objectives, which were sought either simultaneously or separately depending on the context. Organized as a prelude to an eventual sensitization seminar, an information day is used to provide information concerning the project, its goals, content and methods to an audience which is still unaware of the project. It is also organized for educators already involved in the project, either to give them additional information about the project or to discuss together the problems arising at the local or regional levels and to solve them whenever possible so that the population education activities can advance satisfactorily. These last three objectives can be sought at the same time. Objective-centered teaching is also used during the information days. The objectives which are defined beforehand are sent to the participants who also receive the day's programme. Before leaving at the conclusion of the information day, they fill in an evaluation sheet.

In addition to the seminars and information days, various types of meetings at all levels are also organized. However, all these meetings have a common two-fold goal : their aim on one hand is to know the status and achievements of the project as it evolves and on the other hand, to consolidate the achievements and to better control the project's future development by increasing exchange and strengthening ties among the various activities and agents.

Table N° 5

Objectives of the information day
1. To be able to identify and analyse the institutional objectives of population education.
2. To be able to differentiate population themes (those which are included within the institutional objectives) from other themes.
3. To be capable of relating the activities of "Education and Population" Clubs to the project's objectives.
4. To define and explain the roles of the group leader, the expert and the teacher-lecturer.
5. To define the relationship between the group leader and the expert or the teacher-lecturer.
6. To differentiate and define the nature and areas of competence expected from the experts.
7. To identify the eventual errors in a given programme of extra-curricular activities.
8. To set up a programe of activities based on the institutional objectives of the project.

In this connection, however, reference may be made to the fifteen-minute *radio programme* which Mr. Hbaieb Mohsen, the regional project coordinator for Sfax has been broadcasting since 6 January 1978. This experience can provide lessons for future extension. This 15 minute programme was broadcasted every Sunday at 7 p.m., but not exclusively for the benefit of teachers and students.

The radio broadcasts were composed of the following programme content: views, attitudes and appraisals given by the school principals experimenting the project; extracts from lectures given in the "Education and Population" Clubs; comments and suggestions made by experts participating in the various activities; remarks about the attitudes and behaviour of the teachers, experts and principals about the project's goals; views and attitudes of teachers and students who participate in the "Education and Population" Clubs; analytic studies of population education related problems; analysis of teaching methods actually used; presentation of the methods and contents of some population education seminars and workshops; information about future activities (place, date, contents); teachers' and students' views of the role of audio-visual media in communication.

The speakers expressed their own views and opinions and the recording was made immediately on the equipment provided either by the Tunisian Radio-Television Station at Sfax or the Regional Pedagogical Documentation Centre.

As of 1 January 1979, this experimental radio broadcast was discontinued because the Sfax regional radio authorities did not consider it useful. But another similar broadcast has just been started at the initiative of a secondary school teacher-coordinator in the Monastir region by the regional radio authorities. In both cases, the use of the media did not result from the concerted action by the project leadership, but it was the work of highly motivated educators. In a similar way, the radio, television, weekly reviews and daily newspapers have been used from time to time (interviews, reports of actions) by a journalist and a highly motivated teacher.

2) Integrated courses and objective-centered programmes

The students are directly involved or take an active part in three main types of activities:

- the integrated courses,
- the test classes,
- the extra-curricular activities organized in the "Education and Population" Clubs which have been created along with the other school clubs.

In line with the project's goal, every teacher involved in the project is expected to attempt to *integrate* population education components into the teaching of his discipline. In doing so he should neither lose sight of his discipline's specific objectives nor replace them with new objectives. It should be done in such a way that the ordinary lesson conceived, prepared and given according to the normal time-table and within the framework of the programme of studies in operation contributes at the same time, to the attainment of the new goals set by population education. This is what is meant by the term *integrated course* - this is a quite different approach as compared with a separate course approach. The integrated courses are temporarily considered to constitute a separate category only to the extent that all teachers are not yet involved in the project, and those who are involved are still at the experimentation and research phase. These courses will no longer be considered apart when population education, as it is presently conceived, will have resolved all the problems related to integration and come to be used throughout the system.

The seminars have certainly helped the teachers to understand the philosophy and the principles underlying this integration and the conditions which are required to bring it about. But the seminars have only given the teachers some general indications about how to actually apply these ideas. In this regard, the teacher receives two kinds of assistance from the seminars in addition to what he can learn form his own personal experience and research. One is a tool and the other is a series of examples to be used to provoke thought rather than to copy.

Let us first of all consider the tool. For some time the teachers had to wait until the tool had been developed along the lines of the above-mentioned principle of objective-centered teaching. This was done by *translating each notion or division of each course syllabus of the various disciplines in terms of the specific population education objectives*. The so-called "specific" objectives (as we will show below, we do not consider this adjective to be the most appropriate one) are stated in terms of numbers, definite operations or defined behavioural patterns which enable or are supposed to enable (1) the teacher and the student to verify that the *basic objectives* have actually been reached. The so-called "*intermediate*" *objectives* or *teaching objectives* are designed to form a link between the basic objectives and the specific or *appraisal objectives*, by providing them with the means to reach the latter objectives. In order to see more clearly how these course syllabi have been modified as to include population education objectives, several examples from some of the principal disciplines are included below.

NATURAL SCIENCES - FOURTH YEAR :

Main chapters of the official course work :

- Sedimentary rock formations and the regional or Tunisian geological phenomena
- Rocks and internally-originating geological phenomena
- Movements of the earth's crust
- Land formations
- An attempt at a regional synthesis
- Human origin and evolution

Main theme considered by population education and its translation in terms of objectives :

1. *Basic objective :* the student should be able to explain man's relationship to the earth's crust.
1.1. *Intermediate objective* : the student should be able to define the term erosion, to explain its causes and the ways to prevent it.
1.1.1. *Specific objectives* : with the help of his own personal tests, slides or a field survey, the student should be able to explain the influence of running water, wind and the sea on the earth's crust by listing and commenting on all the factors contributing to erosion.

Basing his explanation on the above specific objective, the student should be able to prove the need to save the earth's crust by listing and explaining the various means to combat the different types of erosion and list the advantages of afforestation and dams and also describe ways of stabilizing the sand dunes.

GEOGRAPHY - SECOND YEAR

- *Official course work*
- *Compulsory questions*

AFRICA :

- General information about the physical and human aspects. The States.
- Zaïre, Ivory Coast.

ASIA :

- General information about the physical and human aspects. The States.
- Japan
- Turkey
- India and Pakistan

---

(1) cf. the critical analysis which we have made below, part III.

optional questions : (one per year compulsory)
- Senegal
- Union of South Africa
- Indonesia
- Population and standard of living in Asia
- African wildlife
- The religions of Africa and Asia

Main themes considered by population education and their translation in terms of objectives :

1. *Basic objective* : the student should be able to understand how the inhabitants of a region relate to their natural and economic environment.
1.1. *Intermediate objective* : the student should be able to analyse the natural environment's characteristics and their relation to population phenomena.

Specific objectives :
1.1.1. Using a chart showing population distribution in Africa and Asia, the student should list three factors favouring and three limiting population concentration.
1.1.2. After studying some tropical regions, the student should be able to analyse at least two different examples so as to show the role of water in urban contexts and with regard to overpopulation.
1.1.3. Using an analysis of Japan's economic and population charts and other statistics, the student should list at least two examples (one related to demography, the other to economics) which prove that poor natural conditions do not necessarily determine population distribution and density patterns.

111.2. *Intermediate objective* : the student should be able to identify the aspects and causes of under-development, showing in particular the link between economics and demography.

Specific objectives :
1.2.1. After studying a few developing countries in Africa and Asia, the student should be able to mention at least four aspects of under-development and to impute at least one cause to each of these aspects.
1.2.2. After viewing a film or slides on the world's nutritional problem, the student should find at least three factors contributing to the problem of hunger and malnutrition in the African and Asian countries.
1.2.3. Referring to a table of per-capita income in two Asian and two African countries, the student should list at least one economic and one population cause which explain these low levels of income.

2. *Basic objective :* the student should be able to understand how development policies and population policies are inter-related.
2.1. *Intermediate objective* : the student should be capable of differentiating the different development policies from the various population policies.

Specific objectives :
2.1.1. Using a population study of Japan, the student should list two main factors which explain Japan's policy to limit population growth.
2.1.2. Referring to a population study of India and Pakistan, the student should list at least three factors which explain birth control policies in the two countries.
2.1.3. Using two tables on population distribution for the socio-professional categories in Japan and Ivory Coast, the student should explain at least two main features of each of these country's development policies.

HISTORY – FIFTH YEAR

Official course work (main chapters)

Compulsory questions

- The Islamic world from the early 18th century to early 19th century
- The Ottoman empire
- Husseinite Tunisia
- Algeria of the Deys
- Alaouite Morocco
- The western world in the 18th century
- The French Revolution and the Empire
- The world in the early 19th century

Optional questions (one per year compulsory)

- The Mosque of Youssef Sahib Attaba
- Tourbet El Bey
- Bonaparte in Egypt
- Catherine II of Russia
- Robespierre
- The American War of Independence
- The period of enlightened despotism.

Main theme considered by Population Education and its translation in termes of objectives :

1. *Basic objective:* the student should be able to show the link between individual and group behaviours and the values and norms which govern them.
1.1. *Intermediate objective:* the student should be able to understand how the conditions existing within a country relate to its population change.

Specific objectives:
1.1.1. After studying the 18th century Husseinite reign, the student should be able to explain three consequences (economic, social, population) of the conflict between the Husseinites and the Pachas.
1.1.2. After studying 18th century Tunisia, the student should be able to make a chronological chart which shows two important periods of political stability and one of political unrest. Within each of these periods, the student should show and analyse one aspect each of economics, population and social life respectively.
1.2. *Intermediate objective:*The student should know the economic and social transformations of the 19th century western world as well as the ideas behind the French Revolution.

Specific objectives:
1.2.1. Aided by the *Universal Declaration of Human Rights* text and some reference material on the 1789 French Revolution, the student should be able to see at least two principles which set forth human rights and at

least two main characteristics of this period's new economic situation.

1.2.2. In studying the French Revolution, the student should be capable of drawing up a comparative chart of two political aspects, as well as two economic and two social aspects of situation before and after the Revolution.

ISLAMIC EDUCATION - SEVENTH YEAR

1. *Basic objective:* the student should be able to show the relationships between individual and collective behaviours within a given group and the values and norms which govern this behaviour.

1.1. *Intermediate objective:* The student should be able to explain Islam's position with regard to the sexual aspects of human behaviour.

Specific objectives

1.1.1. From a series of Koranic verses, the student should be able to recognize two verses showing Islam's answer to the human being's legitimate requirement to satisfy sexual needs.

1.1.2. By analysing a Koranic text, the student should be able to identify at least two dangers which can result from sexual freedom.

1.1.3. The student should be able to correctly compare Islam's true attitude towards women and their social status with those of other contemporary conceptions and systems.

1.1.4. Using a Koranic text as support, the student should be capable of comparing the behaviour of a community which is based on its religious values to that of a different community which leaves aside or does not possess religious values. At least three dangers resulting from the second attitude should be mentioned.

2. *Basic objective:* The student should be able to analyse the principal economic concepts which are related to the population concept.

2.1. *Intermediate objective:* The student should be able to explain Islam's conception of the economic system.

Specific objectives

2.1.1. Based on a text describing the economic systems, the student should be able to list three advantages which make the Islamic system superior to the others.

2.2. *Intermediate objective:* The student should be able to specify Islam's attitude towards work.

Specific objectives:

2.2.1. From a list mentioning the social and religious advantages, the student should be able to correctly identify at least three social merits of work.

2.2.2. Using a narrative account which he will be given, the student should be able to show three negative consequences of unemployment.

2.2.3. The student should be able to give at least three examples to clearly show why Islam insists on the necessity of work and on the damages caused by unemployment.

2.2.4. He should be able to correctly locate three agricultural and three industrial regions on a map of Tunisia.

3) The test lessons

Now that these examples have helped to show the kind of tool which the teachers may use to integrate population education questions into their course syllabi, we will continue by describing and analysing the *test lessons* which represent the second type of pedagogic activity used in the Project. These lessons provide teachers some additional ideas for integrating population education into their work. In their daily practice, the teachers carry out their own pedagogical research and experiments which contribute to the development of educational tools. The teachers submit their research findings to the school principal, the teacher-coordinator and the other teachers in the project so that it can be examined and tested in the form of test lessons. If they so desire, the regional project coordinator, the inspector concerned with the subject and the Regional Delegate for education can also attend these lessons. The teacher-coordinator often helps the teacher find the needed resources and support either within or outside the group and school. Aid can also be requested from the regional coordinator.

The test lesson serves three purposes which should each be taken into account in its analysis and evaluation. First of all, it is a way for the teacher to *appraise and improve his teaching practice.* Secondly, it serves as a means to reach teachers who are not yet aware of the project or to stimulate them to attend a sensitization seminar. Thirdly, for the other teachers, the test lesson serves as a laboratory for action-research oriented principally towards problems of a methodological and interdisciplinary nature. The test lesson is usually followed by a meeting where observations are exchanged and discussed. New fields of reflexion and research lines are also introduced and partially explored.

In these lessons special attention is paid to the way in which the teacher has tried on the one hand, to satisfactorily combine the contents and methods so as to stay within his own discipline and still include population education concepts, and on the other hand, to establish or open up links with other disciplines. For example, from a methodological standpoint, it is interesting to see how a teacher of French language uses a text containing population information in order to reach his specific objectives, by requesting the students to *identify appropriate vocabulary*, to *summarize* the text and after analyzing it, to *restate* the information in a *different style*. This type of linguistic exercise would make it easier to control whether the students had correctly understood and assimilated the ideas, which is essential in order for them to truly understand the entire population concept. In line with the official programme which recommends that texts relating directly or indirectly to cultures and civilizations be studied, another teacher of French might choose a text describing the Algerian woman of today and then use this theme as a basis for discussion The students, motivated by this theme of current events, would be more interested to discuss this topic either among themselves or with their teacher and would speak more freely. Because the students want to be heard, they would become more interested in learning how to build solid arguments and to express themselves clearly.

From the methodological point view, the test lessons most often use the same teaching methods as those employed in the sensitization seminars or workshops, i.e. objective-centered teaching, group techniques including the "Philips 6 x 6" with panel and role-playing. In the example mentioned above, the teacher imagined that a "Union of Young Unemployed Men" strongly demanded in a news communication that "a law be voted to dismiss all employed women". Six groups of students were formed, each of which was requested to represent one of the following groups: the National Union of Tunisian Women, the "conservatives", the husbands, the young unemployed men, the girl students. After discussions within the groups, the panel was constituted by the spokesmen of the groups.

4) The extra-curricular activities

In most Tunisian secondary schools, the extra curricular activities enable the students from different classes in the school to meet for activities based on their common interests and to create what is known as a club (e. g. a photographic club). The principal, the coordinator and the teachers in the project can also encourage the students to create an "Education and Population" Club, which comes under the direct responsibility of the school principal assisted by the coordinator. Based on the students' needs and with student collaboration whenever possible a semestrial programme is set up and then developed by the coordinator; he indicates the nature of the activity, the main topic, the grades of the students, the supporting materials as well as the names and titles of the group leaders or the speakers taking part in the activity.

An evaluation sheet distributed to each of the students taking part in an activity enables the collection of the following data from the students: their age, sex, group (sciences, literature, technical studies) and class; their views on the content and the group techniques including what impressed or interested them most; and finally their frank observations and suggestions.

The minutes prepared at the conclusion of an extra-curricular activity provides a series of information concerning the activity itself: data, time and place of the activity, its group leader, the names and titles of the experts or the speaker, the theme discussed and the educational resources used (human and audio-visual). The rapporteur also briefly presents his observations. In addition, data concerning the participants are also included: teachers already sensitized and those who are not yet sensitized, distribution of students according to sex and grade.

a) *The "Education and Population" Club*

The extra-curricular activities, which may take place within the school premises, are made up of two to three-hour sessions. The introductory lectures are given by experts, specialists in a given field or *teachers* from the school or a neighbouring school. The former are reimbursed on the basis of 10 dinars per meeting, and the latter receive 3 dinars per meeting. The *audio-visual aids* serve to introduce, accompany or provide a reference source for the discussion between the experts and the students. For a given theme the activity is sometimes organized in the form of a round-table discussion where the experts, teachers and students exchange veiws almost immediately. After the introductory lecture, the most commonly used procedure is for the work to continue by using the methods experimented in the seminars, i.e. group techniques, and in particular the Philips 6 x 6 with panel, simulation of situations and role-playing. A group leader, often the teacher-coordinator, directs the various phases of the activity, ensures continuity and at the end of the meeting makes a summary of the discussion before drawing any conclusions, even if they are only provisional. A CRPD team frequently comes with its video material to film at least one phase of the club's activities, especially the debates which occur either with or without a panel. These taped documentaries can serve as thematic and discussion material for a partial or global evaluation or for one of the workshops held for the group leaders. In line with the project's philosophy, the "Education and Population" Club is open to a variety of themes (1) related in some way to the concept of population education. As the themes cover a wide range of subjects, numerous specialists are called upon so that the information can be presented seriously and yet in a way which will stimulate the youth's intellectual curiosity. In keeping with the underlying philosophy of the project, there is need, however, to continually underline the interdisciplinary nature of these diverse and specialized themes. This is the task of the coordinator, the group leader and the teachers working in the project. Tables N° 6 below and N° 7 on page 178 are examples which show this diversity. Later in our report, we will discuss whether or not this diversity and multi-disciplinarity can develop into an interdisciplinary approach and how this can be made possible.

Table N° 6

SFAX REGION
PARTICIPATION OF SPECIALISTS
IN POPULATION EDUCATION ACTIVITIES
(1977-1978)

Obstetricians	8
Doctors	5
Nutritionists	4
Specialists of venereal diseases, skin specialists	6
Members of the National Bureau of Family Planning and Population	2
Judges	8
Lawyers	3
Mid-wife	1
Regional delegate for Rural development	1
Delegate for tourism	1
Architect	1
Pharmacists	2
Laboratory assistant	1
University Professors	5
Delegates for the Office of Employment	9

---

(1) A list of the themes is given in table 4.

Table N° 7

BEJA REGION
THEMES OF EXTRA-CURRICULAR ACTIVITIES
(1977-1978)

SOCIO-ECONOMIC DOMAIN

- Influence of the socio-economic factors on the student's work
- Emigration in the Ras-Jebel region
- Values and behaviour
- Influence of the socio-economic and political situation on values and behaviour
- Comparison between the industrialized world and the Third World (3)
- Tradition and marriage; Islam and marriage
- Personal status of the Tunisian woman
- Juvenile delinquency
- State budget
- Economic under-development (2)
- Divorce
- Family planning throughout the world and the position of Tunisian women (2)
- Islam's attitude towards sexual life
- The geo-demographic problems throughout the world
- The evolution of life
- The conflict between generations
- Sexual racism
- Mixed groups
- Emigrants' life in the country of the residence
- The demographic explosion in general and in Tunisia (3)
- Tourism
- Female work
- The woman's position in the traditional environment and in a developing country
- Feminine literature in Tunisia
- The position of Tunisian women before Independence
- Murder and Society
- Relationships between family members
- The under-development and Islam

BIOLOGICAL DOMAIN

- Biological aspects of puberty (2)[x]
- Human reproduction
- Human fertility
- Menstruation
- Women's menstrual cycle (puberty, adult, menopause)
- Contraception (8)
- Family planning
- Pregnancy and birth
- Evolution of the foetus and birth (5)
- Painless birth
- Premature infants

HEALTH DOMAIN

- The composition of food
- Malnutrition
- Proper nutrition (3)
- Practices to maintain the pregnant woman's health
- Microbes
- Alcoholism
- First aid
- Pollution and the environment
- Venereal diseases (2)
- Man and his environment
- Public health
- Tobacco and its dangers
- Drugs
- Common diseases in the Third World

[x] The figures within brackets indicate the number of meetings held on a given topic.

b) *The "Education and Population" Club and the field surveys*

The students' extra-curricular activities can also take place in the neighbourhood community with the participation of local inhabitants. Depending on the theme, the local people can be met with either at home, at work or during their leisure time. Preparatory work for the survey is carried out by choosing and defining the topic, collecting the basic information required and developing the tools to be used (observation guide, questionnaire, interview guide ...). Immediately following the conclusion of the field survey, a meeting is held to exchange the first impressions and to make a preliminary analysis of the materials collected. The same teaching methods as those experimented with in the seminars are used in the clubs. Often a survey made on any particular day covers only one aspect and one moment of a comprehensive study of a broad theme, such as for example women's work. In such a case, the findings and the conclusions of the day's survey are compared and considered afterwards with the subsequent days' survey findings on the same subject, so as to prepare a final document through progressive analyses and synthesis. This was for example the case with a survey conducted by the "Education and Population" Club of the vocational secondary school at Ouardanine in which we were able to take part. This survey was conducted in the framework of a broader study on women's work. During the meetings of the "Education and Population" Club, the teachers and students jointly established an inventory of the different aspects of the theme and its related problems. Adopted as the general and fixed frame of reference, this *inventory* (cf. Table N° 8 below) provided the basis for drawing up two separate *questionnaires* which were to be used respectively in oral surveys with the foreign and Tunisian supervisory staff and the women workers of two factories manufacturing ready-made garments. These two factories are located near one another within Ouardanine city limits.

Table N°8

"EDUCATION AND POPULATION" CLUB
(vocational school at Ouardanine)

FRAMEWORK FOR A STUDY ON THE THEME OF WOMEN'S WORK

1. Can women reconcile their work outside the home with their household tasks ?
2. What is the attitude of men towards women who work ?
3. Why do women work ? What is their goal ?
4. What kinds of work can women do outside the home ?
5. What social problems result from the fact that women work ?
6. Do material needs force the women to work outside the home or is it her desire to exist alongside with men ?
7. How does the fact that married women work outside the home influence the children's education ?
8. In Europe the labour force is scarce which is the reason why women work along with men; in our country there are a large number of men (and unemployed as well). In this case doesn't the women's desire to work outside the home create problems ? Can their attitude be seen merely as a wish to imitate industrialized countries or as a desire to be modern ?
9. Men's hesitant attitude towards allowing women to work is sometimes considered as a sign of egoism. What do you think ? How do you think you can prove your opinion is right ?
10. Some people think that women's work is not very productive because of various biological, psychological and social factors. Do you think this is true ? How can you prove that your opinion is correct ?
11. What does the future hold for the educated girl ? Especially after marriage ?
12. Are there conflicting attitudes between fathers and daughters, especially about work ?
13. Some western theories call for clubs to be created especially for women. Do you agree with this suggestion ? For what reason ?
14. Do you agree with those who encourage the possibility of part-time work for women ?
15. How do you think women should spend their salary ?
16. Do you approve of the law against polygamy ? Give some justification for your point of view.
17. Generally fathers favour their sons more than their daughters. Make some comments on this statement.

Table N° 9 shows the questionnaire prepared for the supervisory staff. For the women workers, the questionnaire served more as an interview guide.

As the factories and the town are relatively small, this survey was especially interesting because it brought almost all students face to face with situations and behaviour patterns which they were only vaguely aware of until then : some through mothers, others through sisters or a more or less distant relative. We had the strong impression that the students' new perception about someone they thought they already knew but whose living conditions were suddenly just discovered would significantly alter their feelings and behaviour towards them. This experience was obviously striking enough to influence the students and provoke them *to ask new, more profound questions about their own future.*

It should be mentioned that in addition to these two main activities the "Education and Population" Clubs also organize, within the framework of their programme, occasional visits between secondary schools by both teachers and students to exchange information and experiences. These visits also serve another purpose when they become study visits and provide an opportunity for students from rural secondary schools to meet those from urban secondary schools and discuss together topics such as out-emigration from rural areas or urbanization.

Table N° 9

"EDUCATION AND POPULATION" CLUB

Vocational school at Ouardanine

QUESTIONNAIRE TO BE USED WITH THE SUPERVISORY STAFF OF A FACTORY WHICH EMPLOYS WOMEN AND GIRLS

1. General comments and information about the factory.
2. Why does this factory and all the factories which produce goods for export purposes employ only women ? Are there only economic reasons (lower costs, better production, absence of demands for rights, etc...) ?
3. Why was Tunisia chosen as the place where the factory would be implanted ?
4. Has the firm set up other factories in Tunisia ? What do they manufacture ?
5. What measures of security are taken for the women workers ?
6. During work have there been any incidents inside the factory ?
7. How would the firm react if it were asked to replace the women workers by men ?
8. The young girls generally work for a given period of their life: once they get married they give up their work. Does that influence the factory's production ?
9. Do the women workers receive some form of intellectual or social training ? If yes, does the firm take part and in what ways ?
10. Are there any plans to expand the factory ?
11. What raw materials are used ?
12. The final products are exported to what countries ?
13. What is the Tunisian Government's share in the factory's total revenue ?
14. Is the women's health affected by the kind of work they do ? Is it true that many of the women and girls fall unconscious sometimes and feel very tired when they return home ? How can this be explained ?
15. Do the salaries correspond to the type of work ?
16. In some cases have the families of some women workers been contacted ?
17. Does the factory train the women workers in any way ?

III – FUNDING : SOURCES AND ALLOCATIONS

In order to provide a complete picture of the project, it is necessary to provide some details about the funding sources and the procedure for allocating funds to the project as and when needed.

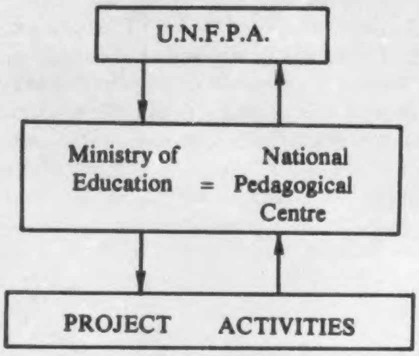
By an agreement signed in 1975 between the Tunisian Government and the United Nations Fund for Population Activities (UNFPA), the latter agreed to provide funds equivalent to 4,000,000 US dollars for the period extending from 1 September 1974 to 31 March 1978. This assistance was to be utilized to finance the population programme projects included in the three-year 1974-1977 activity programme of the National Bureau of Family Planning and Population (ONPFP).

The Tunisian Government also designated ONPFP to be the counterpart agency responsible for the implementation and coordination at the national level of all projects financed by UNFPA, which therefore also included the project *"Integration of population education into secondary education"*, (TUN 74/P02). The Government appointed the ONPFP Director General as programme coordinator and gave him the responsibility to nominate a national officer to direct each operational project. In collaboration with the other participating government agencies, the ONPFP was re-organized so that it could satisfactorily direct and oversee each phase of every project. At the end of December 1975, however, the population education project was transferred to the Ministry of Education which was attributed responsibility for the development and implementation of all pedagogical aspects. The reasons for this change have been explained in Part I. But the Ministry of Health, which supervised the ONPFP, however continue to be responsible for the management of the funds provided for the project by the UNFPA.

The agreement concluded between the Government and the UNFPA stipulates that UNFPA's contribution "represents a complementary funding to the annual expenditure on Family Planning incurred by the Tunisian Government from its own resources and does not represent substitute funding" (1). In order to fullfil this stipulation, the Ministry of Education took over the payment of the salaries of eleven persons in the population education project as well as the expenses of rent and upkeep of the buildings. To illustrate the volume of expenditure that this involved one could mention that the expenditure for the first semester of 1978 amounted to 37,570 US dollars.

The UNFPA contribution covers the salary supplements of national and international personnel such as the Unesco consultants, the training expenses for the school principals and teachers (sensitization seminars, workshops, information days) and also the purchase of basic equipment, essentially teaching materials. Thus, the funds allocated for the new project TUN/77/P02, which correspond to the second phase of funding and cover the period of the Fifth Plan (1978-82) amount to 316,000 US dollars.

The diagram N° 3 below shows how the funds provided by the UNFPA are chanelled into the project.



Now that the project's organization, functions and operations have been described and analysed, we will look at the project in terms of the different aspects, problems and effects which are related to its innovative nature.

---

(1) cf. Agreement p.3, para. II.1.

PART THREE

THE IMPLEMENTATION OF THE PROJECT : LESSONS, PROBLEMS AND OUTLOOK FOR THE FUTURE

I – THE PROJECT SEEN AS A STRATEGY OF INNOVATION

We would now like to reconsider the project just described in order to show the strategy of innovation which is implied, even though it cannot be clearly seen at all times, and the relatively deliberate choice made to squarely face and eventually attempt to solve the problems which inevitably accompany any innovation in education. The problems are of two categories: the first set of problems are related to the setting up, the strengthening and the extension of innovation; they are general in nature and will be found under any circumstances. The second set of problems are related to the specific contents and context of the innovation; as each set of problems varies, so also do the solutions. This distinction should not be forgotten or neglected as it corresponds in part to the reality of the situation. However, it should not be taken as absolute because the two sets of problems are closely intertwined and, as will be shown later, solutions to them cannot be found separately.

In selecting an approach and the means to implement a project of educational innovation, one is often tempted to choose what seems to be the surest and the most rational path; in some cases this actually does work. The method is well-known: a given programme is experimented on a relatively representative sample; successive assessments and changes are made until a sufficiently feasible model has been developed for future generalization. Because of the continuous modifications and serious final evaluation, this procedure seems to be safer and presents many advantages. However, these advantages are not as clear-cut as they might appear and may even present certain difficulties. A two-fold critical outlook is required in order to consider the particular teaching conditions and then to see how the new approach can be integrated into the educational system. In order to make the experimental classes representative, special classes are created completely outside of the existing commonly accepted institutional norms and standards. Rather than resembling the actual teaching setting, these classes would look more like laboratories. On the other hand, if ordinary classes from one or several secondary schools are chosen for experimentation, there is a risk that some of the variables would be excluded and thus all the factors affecting future large-scale extension would not be represented. In addition, there is a danger that this type of pilot projects tend to be totally marginal to both the ordinary teaching situations and to the current institutional norms. This may be due either to the rather excessive experimental nature of these classes or to the special nature of the human and material resources made available to them. It might also be due to the special status from which pilot projects almost inevitably tend to benefit. This would mean that innovation is not integrated into the structure of the educational system (for some innovations this integration is not the least of its problems) and that it will be seen as something different, apart from and outside of the official and ordinary structure.

When a project is marginal, it is almost always misunderstood. These two inter-related phenomena together usually lead to other negative consequences. Generally speaking, the marginal existence and misunderstanding will then be used to support the excuses given for resisting change and the accompanying pseudo-arguments (especially the circulation of rumours and misconceptions around them). The most serious consequence of this strategy is that it tends to further strengthen and mutually reinforce the resistances to institutional, psychological or pedagogical changes as well as to modifications in the content of innovation either true or falsified. There is no doubt in our minds that if this strategy had been chosen to promote population education in Tunisia, it would have provoked serious opposition. What appears true for Tunisia would equally hold true for other countries. The opponents would have used those erroneous ideas about population education, either upheld with conviction or voluntarily misconstrued; they would have also used ideas based on religious education and moral values to support their argument that population education was being "imposed" under outside pressures in order to reduce the strenght of the country and the force of Islam by weakening its civilization, by reducing the number of its adherents and by endangering even their vital life forces and quality as human beings.

If following a diametrically opposite strategy, it had been decided to bring about change by directly imposing them through regulations and by officially introducing them in the system and its structures (and even if teachers had been forced to adopt them), there would still be innumerable and perhaps even greater difficulties which the project would have had to face in order to reach its goals. This would be the case for many reasons. First of all, *the natural inertia of the institutions* makes them immune to radical change unless they have become truly inoperative. *Structural changes no doubt induce new behavioural* *patterns or otherwise the structures could not become truly functional.* But the individuals insolved usually resent such induction as an imposition, provocation or even an attack and accept it poorly. Then they tend to protect themselves and hide their own resistance - open or covert - behind the existing institutions, either to resist the innovation directly or to "recuperate" it. Instead of promoting change along the lines intended by the coherence of the system and by its promoters, direct structural changes run the risk of further hardening the opposition of those individuals who enjoy favoured status and roles in the existing structures. This is all the more true, with regard to the more powerful among them who are most attached to their advantages and power, and understandably therefore defend their positions by resisting change. Even though the new system requires different behaviours in order to function correctly, the problem would not be solved even if these behaviours were adopted.

The educational system, more than any other system, cannot function satisfactorily with people who are considered to have merely "adjusted" behaviours. Such behaviour can only be effective if in the more or less long term they reflect the visible image of their *commitment to belong and participate.* There is every reason to think that if no other measures were taken, this procedure and strategy would produce, just like the strategy previously referred to, a *combination of resistances arising from the inertia of daily routine and habit* and those more active forms arising from the fact that the present conception of population education in Tunisia is only somewhat understood and is often misinterpreted. A change in mentality culminating in a new consensus is much more important than a mere change in behaviour; what finally counts is rather the *dialectic of these kinds of changes* suited to each circumstance than their mere presence or even their respective importance. To end this brief discussion, it should be added that the implied costs and potential hazards make it difficult to openly and directly attempt to provoke such fundamental and wide spread changes without taking appropriate precautionary measures.

From the point of view of innovation, and in the light of what has just been said, it is more interesting to analyse the rather original approach which Tunisia has chosen to implement its project.

Given the high esteem in which the school is held by the general public, parents and educators and reciprocally the school's concern to preserve this confidence and also given the suspiciousness with which people watch for any form of population activity that might be imported or imposed from abroad, the decision to have the project transferred under the authority of the Ministry of Education and to be directed by a national team composed of teachers recruited directly from secondary schools has certainly had a positive effect. In itself, this transfer could not have eliminated, and in fact it has not been able to remove all suspicions and prejudices. The fear that the teachers or the central team and the educators are being subtly used as agents of an anti-natalist campaign in spite of themselves may still subsist. This feeling existed among certain sections of the population in 1973 and continues even today to be found in some places. Given that the educators and the school were highly respected by the general public who had great confidence in them, it could be expected that these fears were felt even strongly. We will shortly explain how and by using what other means these fears were almost completely dispelled. It would be a mistake to underestimate or misunderstand these initial factors influencing the project and their structual importance, for they influenced the development of the project in certain specific ways.

Nevertheless, there were no signs of conflict or rupture when the project responsibilities were transferred from the ONPFP to the Ministry of Education. This observation leads one to an analysis of the relationship between the innovation and the existing institutional structures. The ONPFP which had plenty of other tasks to perform was the first to recognize that different approaches, teaching methods and techniques should be used for its audiences which were different in terms of age, number and occupations. Another important consideration in favour of the innovation was that the transfer of responsibilities, division of tasks and differences in the approach and the resources did not prevent the Bureau from taking part in the project whenever the need for it arose.

These same features are even more interesting and especially important if the innovation is analysed in terms of its links with the structures and agents of the educational system. Although it has no administrative status, the central team has its offices in the ministry. It cannot be considered as constituting the beginning of another service or department. Each team member has remained a secondary school teacher. Therefore the central team cannot be viewed as an eventual replacement for other services or departments, nor is it expected to take over areas of competence and power which are now occupied by others. In its present set-up, the central team has no authority to intervene in any administrative division and oblige it to apply its views or decisions. Although placed under the Ministry of Education, it is nevertheless not structurally integrated within it.

The concept of population education which has inspired and guided the project implementation has significantly contributed to creating and reinforcing this original situation. We have already stated that this conception of population education does not call for entirely new programmes, except for some research activities which do not drain away its budget; it merely puts forward recommendations concerning the general principles of orientation, interpretation, practical application and especially the relationships between the different disciplines which should be kept in mind in developing actual teaching practices. Thus, the Curriculum Department was not require make any radical changes in its texts; such a requirement would have meant imposition by a project from outside its department and authority. We have drawn earlier particular attention to the decision not to introduce population education as a new discipline requiring specially-designated teachers to teach the course. The consequences of this are in harmony with the concept mentioned above. Rather than creating a situation where each teacher finds that some sections of his discipline are being tampered with - because population education covers such a vast field of knowledge and phenomena-each teacher is invited to show that his discipline is not limited to a narrow specialized field and that it could encompass and shed light on other areas of knowledge. In terms of the links between the project and the educational structure, one especially important result of this approach was that the secondary school inspectors did not have to feel upset or think that their position was being contested or threatened either by the central team - which in any event had no power to do so - or by a new category of inspectors who, by virtue of the population education contents, would inevitably speak their mind at some point about how a subject was being taught or how they thought it should be taught.

The main project agents at the regional level, whether they be the regional coordinators or the teacher-coordinators of the secondary schools, were not given any institutional authority. Under the existing system of educational administration in Tunisia and particularly the authority and powers exercised in the absence of a Rector by the Regional Delegate for Education, the project could only result in the regionalization of innovation, despite the close links between the regional coordinators and the central team. In fact, at the project level at present, the accent is being put on promoting rapid regionalization in the organization and planning of activities (1).

It was assumed that by operating from "outside the structure", the project and the innovation would be protected not only from the obstacles and resistances which could oppose them from outside, but also that the innovative nature of the undertaking, i.e. its dynamism and authenticity, would preserve it from within the structure as well. The central team, and to a lesser degree the coordinators, escaped the risks that an innovative approach or a creative activity is exposed to when it is officially recognized by a well-defined status and required to perform a given function within an institutional framework. Defining a status leads to defining a role, which in turn tends to limit the scope of action within defined limits by setting down rules and regulations. Thus the seeds of sclerosis and gradual immobilisation are introduced. In a truly new project, innovation cannot be institutionalized until it first lives through a period where permanent and effective innovation is allowed to take roots. Thanks to an initial innovation, its first application and further development, the lessons that follow from it and the changes which it brings to the initial situation itself, new innovations and approaches come to light or become possible. A continuous process of innovation cannot take place without a certain degree of freedom to develop and experiment with the concept. And this freedom is likely to be seriously restricted if the process is defined within the framework of an institutional structure into which it is also integrated.

This absence of status did nevertheless create some problems which should be examined in order to see the ways and the means which were adopted with a view to overcome them.

If the central team had not benefitted to a certain extent from official recognition and support, it would not have been able to function or its activity would have been inoperational. But the problems are not posed at this level. They occur at the time of obtaining general agreement with regard to the translation of general policy and basic objectives into pedagogical and operational terms and with regard to the implementation of these ideas which have existed merely on paper until then.

In order to develop its activities, the project team had to count heavily on human relations and on short periods of assistance provided on a voluntary basis by people whom it was able to persuade to support the cause it represented. We have already shown that people could not help but be deeply involved if population education were implemented in an authentic way: when its ideas and actions are in conformity with a coherent set of norms and values to which they can easily adhere. If people are strongly opposed to a certain behaviour pattern because of deeply-held convictions, they cannot be forced to adopt it even when it is presented as an official regulation. People's consent is absolutely necessary and it would be better to begin first of all by trying to obtain this consent. From the description of the project implementation just given, it appears that the project's promoters clearly realized some of these consequences. Under these conditions the initial phase of implementation clearly had to begin by using highly motivated and informed volunteers. The various methods to increase the volunteers' motivation and training have already been described elsewhere in this report : seminars under excellent material and psychological conditions; psychological methods suitable for adults and whose novelty makes them attractive to educators; contents which justify the project's existence, define the true objectives and significance of population education, provide the immediately-required basic information so that each one can begin to include aspects of population education in his own discipline taking into consideration the delicate but significant problems related to norms and values. In this respect, the orientation is two-fold: first, to distinguish population education from a birth control policy largely inspired by cultural imperialism which arbitrarily forces foreign values on to the Tunisian civilization and culture and to convincingly show that one of the goals is to train youth to better use some intellectual tools which would enable them to have a stronger hold over their own future; to contribute more fully to their country's economic and cultural development; to use not only the biological and technical knowledge which they have gained but also the economic, political and social knowledge which determines the country's development; to enable each one to knowingly and freely make the important decisions in life and to have a motivated and responsible behavior in one's professional and social life. Second, to distinguish the authentically understood religious norms and values from the abusive reactionary, dogmatic and forcible meanings given to them by false interpretation and to show that it is in no way impossible to reconcile these authentic values with the contents and objectives of population education. The second consequence of the preceeding analyses and still another aspect of the implementation policy is related to the decisive role played, at least, by the human resources. This refers to the selection, at the conclusion of each seminar, among its participants who have attained a certain degree of motivation, of those who, by their manifest interest in the project, personal and leadership qualities and local influence, can become the most qualified agents to promote the idea of population education, to organize the teachers and to set up regional activities in population education.

---

(1) The first measure would be to choose a secondary school in each region which would have the task of collecting, classifying and disseminating printed materials and audio-visual aids with the help of the Regional Delegation.

It would have been a mistake if, in the search for consensus, goodwill wherever it was available and support of those who manifested confidence in the project had been rejected. The fact that the project does not come under any specific administrative structure, except for being under the Minister of Education, does not mean that those who support the population education idea should be neglected or forgotten. The project promoters were very aware of this fact; this is the reason why the first seminars were organized for the school principals and the regional delegates. It is also for this reason that the teachers were only invited to attend the seminars after their school principals had decided that the school should take part in the project. And this is also why the seminars were and continue to be organized for the inspectors whose cooperation in the implementation of several of the activities are not only welcome but specifically needed.

To conclude our comments about the project implementation, it can be said that the costs of the various activities undertaken to implement the strategy are relatively low. If the resources are adequate and enable the goals to be reached, this could be one of the best arguments in support of further extension of population education. As the report has shown, the number of teachers who work full-time and the administrative and technical personnel was very small; and the lecturers are paid moderate fees. The equipment, belonging either to the school or the CRPD, is multi-purpose and is also used for many other activities. Finally, the cost of a seminar is extremely moderate, especially if the outstanding conditions which contribute to the seminar's success are taken into account. The expenses vary from 1300 to 1370 US dollars for a three-day session of twenty to twenty-five persons.

A true cost estimate should take into account not only the achievement of the project's specific goals, but also the indirect contribution the project makes to the educational system as a whole. The scope of the innovations is much broader than it appears at first sight and its positive effects extend far beyond those related to population education alone.

II – THE PRINCIPAL INNOVATIONS RESULTING FROM THE IMPLEMENTATION OF THE PROJET

Population education constitutes and is intended as an innovation; the areas of innovation concern principally the *up-dating and renewal of curricula, introduction of new teaching and learning methods* and, finally, *the introduction of a new type of teacher-learner relationship*. In the analysis it will be possible to see how and to what degree these innovations in the different areas combine with and complement each other.

1) Teaching approach and the teachers' attitudes

a) Population education contents

Population education provides without any doubt an opportunity for the teachers to further their own education and broaden their knowledge. The teachers appreciate it not only as a source of their own personal enrichment but also as a means to provide a wider and more solid base for teaching their discipline to the students. The students indeed are the foremost beneficiaries of this *renewal of intellectual and scientific curiosity, desire to update and improve acquired knowledge and skills,* that the teachers manifest as a result of their participation in the project. Many teachers have told us that their participation has stimulated their interest in the school documentation centers and in the Center of Research and Pedagogical Documentation (CRPD) and that they use the existing educational resources better and more often than before.

It appears that the students have also begun to benefit from this knowledge in three equally important but different ways. Firstly, the teachers' new knowledge as regards biology and demography, demography and economics, economics and sociology, and especially their exposure to the issues touching on these areas, has enabled them to take greater and more active interest in their students' backgrounds and social contexts and to become aware of the nature of difficulties and obstacles that they encounter in their studies in school or at home. As a result, the teachers tend to take more personal interest in their students, especially those from the most underprivileged backgrounds which is reflected in the new attitudes and teaching approaches adopted by them. The teachers try to *work more closely with the parents* and not to separate school education from family education as before. Secondly, population education introduces into the classroom questions which were hitherto ignored or sometimes even forbidden. The integration of population issues or questions related to sexuality creates a freer and more open relationship between the teachers and learners. The students are then more at ease to express themselves in the class. Many of the topics are so emotionally charged that when an opportunity for open and yet prudent discussion is given there is not only an increased feeling of freedom but also a climate of confidence is created which gives *a relaxed and friendly atmosphere to the new possibility of dialogue.* Thirdly, the acquisition of new knowledge and their new awareness, makes the teachers question the *social purpose of their function, the link between school and life,* including considerations about active life in general, and the opportunities available to the students after secondary school, how their teaching can *potentially contribute to economic and social development and how to harmonize it with the individual's growth: these are all questions which foster constructive criticism and a state of mind open to new ideas which are valuable to the advancement of education.* Finally, the aim of broadening the teachers' knowledge is not only the improvement of the teaching of the subject matters. The goal is above all to include population education questions in the most logical and justified manner. Stimulated by the sensitization seminars and the workshops, this desire to integrate population education into their classwork *leads the teachers to be more curious about the subject matters which their colleagues teach and to envisage multi disciplinary approaches.*

This concern then soon manifests in the form of a *new attitude towards teaching* and the teachers going beyond the specific objectives of the project start considering the different ways in which the various disciplines can be related to each other. It is not always possible to establish links between the disciplines. For they are not always closely-knit and at the same time they cannot all be completely and clearly perceived. In any event, this attempt on the part of the teachers to *break down the barriers between the disciplines* gives the students a new perception of the *unity of knowledge*, a new image of their teachers and a new understanding of the meaning and goal of schooling. As a consequence, if the school reports can be any indication, the students become much more strongly motivated to do better in their studies.

The teachers' participation in curricular and extra-curricular activities, their discovery and learning of new techniques and methods employed in these activities, has contributed, much more than the mere learning and transmission of new knowledge, to provoke among the teachers a period of fruitful reflection and changes in their attitude whose diversity and scope is yet to be fully perceived and measured.

b) The teaching methods

The seminars place the teachers in new teaching situations. It is this experience, in its diverse aspects and different forms which has the greatest influence on teachers and through them on students in this phase of innovation endeavours.

After several or more years of teaching, the teachers find themselves in the "learners situation", an experience which has been easily and almost completely forgotten by both young and certainly old teachers. Difficulties sometimes result from this return to an earlier situation. However, the effect of the shift in the center of interest is felt and it is undoubtedly one of the best ways to have the *teachers reconsider their own teaching methods* and to make them understand at least partially the difficulties, feelings and attitudes of their own students.

As no two situations are exactly alike and as they differ for each generation, this influence would have been relatively minor if the seminar methods had not given the teachers an entirely new experience: *an opportunity to do the experiment on themselves,* which is one of the best ways to truly understand the methods. Almost everyone agrees that because of this discovery and this new experience, population education has had the greatest impact on teachers at least up to now. Population education has been able to introduce the largest number of innovations into the Tunisian secondary educational system because, as we have seen earlier through the descriptions of test-lessons and extra-curricular activities, the teachers immediately extended and applied the new methods into the classroom.

During the course of these seminars, by learning the techniques of group work, the teachers become aware of the *advantages* of *cooperative effort* as opposed to competitive and exclusively individual work. They also learn to play the *role of a group leader* as opposed to that of a class-room teacher and to use the *audio-visual materials for teaching purposes* either as a resource to foster motivation, as a means to the transmission of knowledge and skills, or even as a support to group work or as a means of communication among group members. They also realize that the problem of evaluation cannot be seen mainly in terms of judging the students and preparing progress reports; they consider this type of evaluation unjust and ineffective to the extent they understand the other possibilities. In this regard, the *normal practice of defining the objectives* for each seminar is very helpful: even more so the methodological seminars devoted mainly to objective-centered teaching. We shall examine how this approach also helps them to integrate population education into their own disciplines.

The test-lessons and the extra-curricular activities which we observed lead us to believe that the teachers who have started to take part in the project try to apply in their ordinary classes the methods discovered or the experiences gained in the seminars. The skill and the timeliness in applying these methods varies according to the teacher but this can easily be improved in the future and is of little importance in comparison to the pedagogical innovation thus introduced.

Thus if the project is viewed in terms of the innovations introduced, the real impact of the teachers' participation in the seminars appears to go beyond the objectives initially set for them. Besides their interest in the project itself, the teachers have shown *a renewed or stronger motivation for teaching and for pedagogy in general* and keenness to find the ways and means to learn these new techniques and knowledge. This search for educational resources has led the teachers to use better and more frequently than in the past the materials available at the documentation centers and the CRPD, especially the audio-visual aids. The teachers also manifest a desire, once the seminar is over, to continue with their colleagues the discussions started during the short duration of the seminar. Upon return to their schools, they start including the other teachers in these conversations. This will not only help the future extension of the project as intended by the promoters but will also foster the creation of a true community of educators who are clearly determined not to have their profession become reduced to a paralyzing routine.

One of the many advantages of more precisely defining the concepts and objectives will be that it ensures a less dogmatic approach to teaching which would be also less dependant on the lecture system and a more flexible attitude towards the students to take strong roots. It seems that, by taking part in the seminars, the *teachers are then better able to listen to their students, accept their right to express, to question, to accept their unawareness or personal views, and keen that they take an active part through dialogue in their own education.* Such dialogue is made easier by the new focus on each student's personality and the concern to relate some of the behaviours and personality traits to the family and the social background which explain in large part their style and form.

The population education seminars are probably largely responsible for the teachers' ability to reconsider their own teaching approach not only in terms of the methods, as we have just explained, but also in terms of its basic objectives or general aims. *Besides the question, "what do I teach ?" can be added another equally valuable one, "why do I teach ?".* And when these two questions are raised, the search for the inter-related answers cannot be avoided. In the same way that access to new knowledge in the fields of biology, demography, economics and sociology helps the teachers to have a broader and more profound understanding of their own discipline, the approach used in the seminars to treat poblems in these areas also helps the teachers to view their teaching and function in a new light. Instead of considering that their task is to hand out knowledge in order to cover a given course syllabus and to prepare the students for an examination, the teachers see that the teaching approach should be *centered around the student,* which is the very purpose of population education. The teachers also feel more keenly about the *personal and social value of their function.* In return, this feeling can only enrich their teaching practices.

The activities and the methods utilized in the seminars are not alone in contributing to the introduction of all the innovations into the secondary education. In fact, some of these innovations, both in terms of their nature and diversity, come outside the scope of the goals set by the population education project. In this connection, it is important to recognize the contribution made at the local level by the *test-lessons* and the *"Education and Population" Clubs* in the context of activities directly concerned with and involving students.

The test-lesson was already being and continues to be used in the secondary schools as a tool for training the trainees. Experience had taught that when it is well conceived, it can constitute a fertile source of innovation. It is therefore not surprising that it was immediately taken up by the project. But its adaptation to meet the goals of population education increased both its difficulties as well as its potentialities. For the teacher responsible for the test-lesson, it meant doing research and preparing the lessons which will lead to the acquisition of new knowledge that will enrich the teaching of his discipline. From the pedagogical view point, it has two advantages: firstly, doing research is not a common practice, it requires abilities, the gradual acquisition of which can greatly change the preparation of lessons and hence the methodology of all the courses. Also, the data or the information need to be carefully selected so that the two different objectives can both be reached in a harmonious way and thereby combine the two contents appropriately: the objectives and contents of the discipline itself and those specific to population education. Thus, the teacher becomes involved in doing research which thereby induces a new approach to teaching problems and new teaching attitudes. While giving the test-lesson, the teacher takes an unusual risk, a risk that cannot be fully understood and appreciated by anyone outside the traditional educational system. The teacher ventures to *teach in front of his own pupils and peers without limiting himself to his own field of knowledge and area of competence.*

The habit of reconsidering his customary behaviour and attitudes will help the teacher to overcome his inhibitions and the strong reactions to critical evaluation by others. This in turn enables him to reaffirm the new ideas and practices without too much self-criticism -whether conscious or unconscious. For the fear of the judgement of others results in self-criticism. To voluntarily face criticism in attempting to treat complex problems - which nobody knows how to solve but which nevertheless is of interest and concern to many educators is not an easy task. This is particularly true when it is applied to population education. Thus the test-lessons can become a tool and a means for collaboration among the teachers in the form of a research project where the test-lessons serve as the laboratory.

Even when the extra-curricular activities are organized inside the secondary school, they break down the traditional classroom structure and put the teachers in an entirely new setting. Even though population education provides the context for the innovative approach, there can be no doubt that it will have in the more or less long term, a considerable influence on the ordinary teaching methods and courses. Two inter-related aspects of these activities require further explanation. First of all, by taking part in the "education and population" club activities, the teachers openly admit in the very spot where they have always reigned as "masters" that they are neither the sole trustees and suppliers of knowledge nor the only agents of education. The almost revolutionary nature of this new approach can be understood only when it is seen within the context of the traditional educational system. The scope and breadth of its influence are no doubt not fully understood and measured. The second important aspect is that the teachers, who are used to working in a sheltered environment where they only encounter ideas and experiences closely resembling their own, find themselves face to face with specialists from a wide variety of social and professional backgrounds with different training and outlooks. As we have repeatedly stated in this report, the interest of this experience lies not only in understanding how these different groups of people view the population problems and what solutions they propose; this experience is also enlightening in a more general way because it enables the teachers to realize how others perceive the school and its teachers and to gain access to other more diversified networks of information and communication and to test their own ideas and images. In the long run this shift away from the school and the teachers, with the new emphasis on the learners and objectives, will not fail to enrich the teachers' attitudes towards teaching practices.

The activities in the clubs of secondary schools are also important because of their influence on the teaching behaviours and attitudes. It is in the clubs that the teachers try out the teaching methods experimented in the seminars. It is in the clubs that they learn how to lead groups, to practice on-the-spot summarizing of ideas resulting from the debates which are often lively and sometimes even confused. But the most important aspect affecting teaching behaviour is the breaking-down of the commonly prevalent teaching framework which leads on to a number of consequences that are unrelated to the nature of the club itself; and yet the similarity in the themes chosen, their conception and the form in which they are dealt with, should not be forgotten. In the "education and population" club meetings the teacher like the students from a given class have a better chance to meet and get to know other teachers and students than on any other occasions. The teacher learns not to isolate teaching into a fixed lesson with standardized structures within a strict time framework. Especially in the beginning this free expression is not always easily accepted. But one can easily imagine how, by becoming used to and even getting to like this approach, the teachers' future classroom behaviour will change.

The extra-curricular activities which take place outside the school in the local community also present many different kinds of innovation which influence the teachers and through them the students. The activities are prepared beforehand but except for defining the objective, this "preparation" is quite different from the teachers' and staffs' usual definition of this term. Generally speaking the teacher should gradually acquire a good knowledge of the local community, its various ethnic, demographic, economic, social and cultural aspects and how they interrelate. He should also get to know the institutions and their representatives, the firms and their directors, the associations and their leaders, the influential people in the community and their respective areas of influence. With this knowledge the teacher will be better equipped to choose the most appropriate places and people to contact for the extra-curricular activity envisaged. The teacher works with the students, while at the same time learning for himself to develop the field survey tools, the community observation guide, the interview guide or the questionnaire. Without taking over the work himself, he should learn to oversee that the survey or the interwiew is conducted satisfactorily. Although closely related to population education, this knowledge and learning will show its influence and effects far beyond the strict framework of these activities.

This field work enables the teacher to discover a surrounding community which he tends to often ignore in ways which differ from the workshops and which are more direct and meaningful than his preparatory work. Through this more conrete and direct experience, the teacher will discover the human, individual and family facets of problems which he has only known about in theory through texts, however substantial and vivid, and through detailed but abstract statistics. Finally by taking part in the field survey the teacher will clearly show in a concrete way that he is not the only trustee and disseminator of knowledge. He will show that the school is not the only place to learn and that oral teaching methods, however diversified and illustrated by audio-visual aids are not the only educational tools. These experiences - and the originality of these approaches which cannot be taken separately - will prove to be undoubtedly enriching for education as a whole and for the various aspects of its teaching methods.

The teachers are not the only ones who take part in the seminars, the test-lessons and the extra-curricular activities. As we have seen, a number of school principals, inspectors and regional delegates also participated in these activities and then meet with one another during other activities as well. We will now try to see how their participation have introduced new elements into the teaching and the educational system in general.

2) School administrative staff: school principals and inspectors

From the teachers' and students' standpoint the mere presence of the school principal and the inspector in the test-lessons and the Club meetings is enough to give official and moral support to the secondary school teacher-coordinator and the teachers involved in the project. This is even more true when they take an active part. During the course of the seminar, the school principal can see either by simulating a situation or by role-playing the ways in which the population education cause could be defended according to the type of opponent. This experience enables the school principal to enrich his own reflection and understanding and he is better equipped to respond to the reactions of the parent associations, the local government or the religious authorities.

Given the large size of the secondary schools, their participation in the seminars and in population education activities prevents them from becoming mere adiministrators who are isolated from their teachers, indifferent to or unaware of the teaching methods and consequently unable to cope with them. Indirectly population eduation enables their roles as principals and managers to become once again linked to their functions as teachers and educators which have been lost in part. As a consequence, they would be more willing to accept and promote the use of new teaching methods whose efficacy and capacity to foster motivation in favour of renewal and innovation they would have themselves verified through experimentation. They would be more apt to request modern teaching materials such as audio-visual aids for their secondary schools or to seek the help and collaboration of bodies like the CRPD. In this connection, if a secondary school has such equipment, which is either under-utilized or not used at all, the school principal could then encourage the teachers to make use of it with the help of the CRPD or the Regional delegation. Thus the secondary school would not only benefit by making better use of its investments in equipment, it would also help CRPD to better organize its activities and to justify its own existence. Once the audio-visual equipment has been used for the population education project, it would be surprising if the teachers did not continue to cooperate with the CRPD in other areas as well. Such extended collaboration for which the population education project should be given credit - could help improve the functioning of the educational system by giving it a new life and possibility to evolve without which pedagogical innovation cannot take place.

To our mind the project can be given credit for fostering the development of these functional relationships and communication among persons and services within the educational system. The population education activities give the principals and the teachers an opportunity to discuss other topics besides administrative problems.

The development and intensification of relationships does not occur only within the school limits. Meetings and discussions both planned and unplanned take place in a given region between the Regional delegate, the school principals, the Regional Coordinators and the inspectors when a school or even better several schools as is now the case take part in the project. These meetings provide the opportunity not only to better coordinate the project activities but also to exchange ideas and experiences and to promote more direct and active cooperation than is possible in the normal functioning of the educational system. It is not impossible that after having influenced the funtions of the educational system as it is organized, these new relationships and cooperative endeavours lead to a transformation of the very organization of the educational system in the future, although it is not yet possible to say when these changes will occur or which direction they will take.

3) Students

Through their contact with the course work and their teachers, the students are indirectly influenced by the effects of the innovation which population education introduces. We need to look at the specific forms of student participation in the project activities in order to see how the students are most directly affected. As we did with regard to the educators we will look at this influence on students from the standpoint whether the changes are introduced by means of *the contents or by the methods* and will show whether these two aspects combine or come together at a certain point.

a) contents

The contents of population education give the students a clearer perception and a better understanding of the population questions as well as the links among the various disciplines. As a result the students have a fuller idea of the complexity of reality while yet seeing its underlying unity; they can see how the various disciplines complement one another or converge at a certain point. This effort to decompartamentalize the disciplines is closely related to an attempt to bring the school and the community closer and, to link teaching with life and the students are aware of this. These contents enable the students to gain a better understanding of their environment and of the things which they see happening around them: their compatriots who migrate to different areas within the country, emigrate or return home; the public works projects which have been undertaken; the activities of the trade unions and the political parties; the presence and behaviour of foreigners, especially tourists, and the problems arising from this presence and behaviour, etc...

This way of orienting and organizing the new contents into a relatively coherent form has several beneficial effects. It begins to give the students a new image of the schools and a new idea about schooling; it also gives them additional and varied knowledge, develops certain abilities and fosters new attitudes and outlooks. The students are highly motivated by the population education contents, no doubt because they partially fill in the gap existing between school and life in general: 97 per cent of the students questioned said that they were interested and more than 50 per cent were very interested and even enthusiastic about population education. If the project could satisfactorily incorporate population education information into the various disciplines, the entire secondary educational system would profit from this new interest in studies.

The fact that some topics which were ignored or even forbidden in the past are now mentioned or even treated in detail changes the way the students perceive their teachers and often profoundly affects their attitudes. The atmosphere is freer and more open and it is easier for the students to ask questions, show their curiosity and their desire to learn which carries over into the other subjects not covered by course syllabi. We have already mentioned this change in the students when discussing the teachers' attitudes. In spite of its capital importance, we will not elaborate further on this point. As we are now analysing the students' attitudes, it is important to see the nature and the degrees of influence that information has on students when this information is given or sought in group work. This is the case in the classrooms, especially when the teaching methods based principally on group work are used to transmit and assimilate knowledge. In fact when the group takes over the discussion of these questions and requests the information required as a group, the individual students find it easier to overcome the obstacles and the relatively unconscious defense mechanisms which were formed when the forbidden things and information were internalized at an earlier age. This also helps the students learn faster. When these topics are discussed in a co-educational secondary school in a relaxed atmosphere, there begins to develop *a new kind of relationship between the girls and the boys* which eventually makes itself felt outside the school context as well. The students are less inhibited and the discussions are more open. This can be seen in the every-day conversations which cover a wide variety of topics and not just those related to population education. It is most likely that this kind of relationships creating a new atmosphere in the school will be valuable to the students in their studies and also beneficial in many ways to the secondary educational system as a whole.

b) methods

When the test-lesson is continued by discussion either among the teachers of the same discipline or of different disciplines - and if the atmosphere of this exercise is properly respected - the students can witness a dialogue that is likely to interest them and be instructive in many ways. First of all, a debate among several teachers introduces an innovative element which is stimulating in itself. Secondly, the students become aware in a spirited and even dramatic way that the different areas of knowledge are intimately and complexly interrelated. In this personalized form, the dialogue between protagonists who are trying to seek and establish the truth, becomes one of the *most effective methods to teach how to debate*. Besides, it is pedagogically valid in that it reveals so well the qualities required, i.e. an ability to listen to the others, willingness and courage to test one's own ideas, intellectual honesty, concern for precision and a sense of proportion.

Regardless of whether they take place inside the secondary school or in the local community, the extra-curricular activities provide the students plenty of lessons and experiences of a new kind besides those offered by the very subject matter of population education itself.

The first of these lessons has two interesting aspects: one is related to the intervention of the outside specialists and the other to the use of modern educational methods and techniques. Generally, the students realize from the intervention of the outside specialists that their teachers are not the only depositories and transmitters of knowledge and this the teachers willingly admit. The participation of university professors offers the last-year students a form of transition from the secondary to higher education or at least an idea of the approach of higher eduation. Since specialists from outside the educational system do not express themselves in the same way that the students are accustomed to hearing their teachers, they can introduce new styles of thinking into the secondary schools. This exposure, if properly managed, can be very useful both in terms of intellectual training and personal enrichment. The fact that "resource persons", with none of the ordinarily-found titles such as teacher or expert which usually confer competency to the person, take an active part in the activities can have a positive influence on the students. This can help to erase the commonly-held idea that "intellectuals" are a set apart from other social categories, especially manual workers. Their participation therefore can contribute *to reshaping the order of values attributed to the various social roles,* in particular of the peasants, craftsmen and workers.

As we have already explained, the main tools of the teaching methods which were experimented and disseminated by the project are the audio-visual aids and the techniques of group work. Although the visual resources were chosen because of the powerful attraction of pictorial illustrations, by becoming accustomed to working with them the students increasingly come to consider them as sources of knowledge and information rather than merely as a form of amusement. Because these techniques are set within a pedagogical framework accompanied by analytical training, their frequent use enables the students to learn to interpret the images and to constructively criticize the mass media as well.

Generally speaking, in group work the competition and rivalry which are always inherent in a system requiring evaluations and individual work tend to be replaced by an atmosphere of cooperation, with all its respective advantages in terms of pedagogy and interpersonal relationships. It usually also fosters an atmosphere where each group member can more easily express his opinions which, as we have already mentioned, are sometimes highly-charged emotionally and are most firmly held because they reflect facets of his personality. But group work is also an occasion where each person learns about the others and to communicate with them. This is the reason why the assertion of the self, becomes tempered and more meaningful for while listening to the others each person reconsiders his own ideas, examines their true meaning and becomes aware of all their implications and eventual consequences. Because it enables a person to identify with someone else, role-playing leads to shifting the center away from oneself which should help this inner distance to be preserved or reintroduced. If this ability to step back is missing, then the person's convictions either become distorted or else he falls into the trap of forever assuming a role in order to assert his personality. When it is well handled, role-playing can make people aware of the way they perceive others.

But whatever techniques and methods are used, the extra-curricular activities in the secondary schools give the students a chance to discover a new learning environment with a more open and flexible structure than the one to which they have become accustomed. It is a more relaxed atmosphere where new images appear and where the feactures of the people who are already known - the principal, vice-principal, teachers, monitors - become less stereotyped and rigid and this will not be forgotten after the meeting is over. Relationships become freer, easier and more diversified. In this context, the access to new kinds of information is especially conducive to promoting the growth and development of more frequent and spontaneous exchange of views between girls and boys which while beginning in the club meetings continue even afterwards and extend to other subjects besides the theme introduced by the agenda of the day's meeting. The final evaluation which closes the meeting or a series of activities reinforces in the students the feeling that they are not there only to listen and receive information but that the teachers and the school take into account their views, interests and wishes concerning their own education from the standpoint of both the content as well as the teaching methods. Once the students become interested in a topic or a question, they would most likely develop an urge to learn more about it and would personally strive to satisfy it. Probably their free time would also be used differently, and by wanting to continue to study or discuss a topic, they would bring new life to their common meeting places (students' hostels, common rooms in the school, youth centers, etc.).

We will now turn to analyse the extra-curricular activities which are organized partly in the local community. This will be done by taking into account the survey preparation, its conduct in the field, and then the analysis which is carried out afterwards in the school. As before, these activities will be viewed from the angle of the various innovations which it was possible to introduce. There are two phases to the preparation: one to motivate the students and the other to teach them the techniques. The first phase gives the students a general idea of the characteristics of the surrounding community, including the real and often vital problems which are found there. This phase represents a new side to their training and we feel that it is especially important. During this phase, an attempt is made to make them aware that they would probably soon be faced with the same problems. The second phase of preparation involves learning the survey procedures, which is also a new and important part of the students' training. They learn about the division of labour, how to share and co-ordinate tasks, set a common goal, develop the survey tools (observation guide, interview guide, questionnaire, etc...). They also learn communication skills by having to adapt these tools according to the different target groups and their working and living conditions (the kinds of questions to ask, the kinds and levels of language to use, etc...). This training will continue in the field and will be supplemented by training in exploration of a place, observation and taking notes of pertinent and significant characteristics; in recognizing the importance of attitudes specific to communication and in decoding non-verbal signs of communication.

But when the field survey is conducted in an urbanised or developing area, the students will be marked by the discovery of the world of work. Since, in the past, it was often hidden from them, they will learn more about what the world of work is in reality and what are its conditions. This will be a veritable revelation for them in that they will come back with a new image of those people whom they meet with in other places and whom they believe they knew. This discovery is particulary important if it concerns their own parents or others with whom they feel close. From the point of view of innovation, the work which the students carry out conce they return to school is of no less interest. They pool the information gathered, organize the data collected in the field, discuss and reflect about their work using the pedagogical methods which were described earlier. Thus the students learn to establish a judicious balance between the general but abstract knowledge of the general phenomena and their knowledge based on personal experience and to distinguish the outstanding traits. They gain a better understanding of the overall problems as a result of the specific cases which they have seen. From their observations, they also learn to infer other problems which have not yet been brought to light or are not fully known. Lastly, these activities push the students while they are still young to think about how they can best prepare themselves to enter active life. In any event the students come away from these activities with the encouraging feeling that school is not necessarily shut off from life and that it can be closely connected to the real world.

4) Outside participants

The description of all the different innovations which have resulted from the population education project would be incomplete if we did not mention the impact which it can have on those outside the school system who take part in the activities. Although the project helps the school to open into the community and to discover it, the outside participants also discover the teaching world, that of today's secondary school teachers in particular, and the life style of today's secondary school and its students. The university professors are not the last to make this discovery. The barriers separating the different categories of teachers begin to break down and this could bring about significant changes in the future. In fact it is worthwhile for the university professors or those from other institutions of higher education to get to know a little better their prospective students. In this way the project can provide the outside participants with new information relating to their own professional spheres and also exercise some influence with regard to their treatment of the major contemporary themes, including population, as well as the roles which they play in their respective professional and social domains.

What holds true for the teachers of higher educational institutions also applies to the specialists and the "resource persons" but in different ways of course. Some *doctors* told us that taking part in the "Education and population" club activities helped them discover the motivations behind their patients' behaviour. This discovery enabled them to react appropriately from a medical as well as a psychological point of view and to more effectively determine the people's needs in hygiene and medicine. *Judges* told us that these activities helped them to gain better insights into the causes of juvenile delinquency and its consequences thus modifying their attitude towards it and that they now analyse and react to it differently. A systematic inquiry into this "feedback" and the indirect effects of population education would certainly be very interesting and rewarding.

With this suggestion we now come to the last chapter of our study. There is no question of making a comprehensive evaluation, as we have neither the resources nor the mandate to undertake such a task. The remarks which are presented in the following chapter are based on other evaluations made earlier and they do not yet give all the possible solutions from which the necessary choices can be made. The knowledge gained from the project and the analysis that we have just presented might help provide some of these solutions and clarify the choices to be made; it might also help in formulating the problems both old and new in clearer terms and in opening up new areas of action as well as in determining the direction which research should take if it is to find valid solutions.

III – PROBLEMS AND PROSPECTS

1) General suggestions

The observations which we have just made regarding the impact of the extra-curricular activities on the outside participants leads us to consider whether the *parents of the students* should not also be allowed to attend the "Education and population" clubs, at least as observers. One reason in favour of this is not only that the parents would be introduced into a world about which they know almost nothing; they would also discover their children in a new context where their attitudes and behaviour can be very different from what they are outside school. This would also provide an opportunity for the parents to directly come in contact with a project which they often know little or nothing about or misunderstand. Another advantage is that it would make it easier to avoid the occurrence within the family of certain difficulties and uneasiness in relation to *children-parent relationships* which arise from the questions treated in the framework or from the point of view of population education and which can seriously affect the parents' image of the school and the teachers. It might thus be possible to create *some linkages between family education,* or the topics of conversation among the members of the family, and *population education.*

This would also certainly serve as a means of *creating a forum of opinion in favour of the project or at least likely to render the prevalent prejudices against it harmless.* And as we are discussing public opinion, we might also add that one can easily understand and accept the reasons why the mass media were not used to sensitize public opinion in favour of the project. Nevertheless, it is worthwhile examining if this total non-utilisation of the mass media is justifiable and whether some ways cannot be found to use certain of the mass media to promote population education. In this respect we feel that the initiative of the Regional coordinator at Sfax (1) should be studied closely and that it would be worthwhile to analyse the number of listeners, the audience and their reactions to the programmes.

Although the mass media are not widely used, this does not hold true for the *audio-visual aids* which, as we have already mentioned, are used in the project in two different ways: first, they represent teaching tools (e.g. films and slides) either bought, rented or loaned - shown during the seminars and extra-curricular activities; secondly, the video tape-recorders make it possible to film the seminars and club meetings in order to use the films afterwards for observation, analysis and discussions with the aim of improving the teaching methods and the way the activities are organized. But we feel that a comment should be made about the way in which each of these audio-visual aids are being used.

Regarding the use of audio-visual materials to promote population education, the question may be raised whether - in addition to the ones actually used - it may not be useful, if not absolutely necessary to produce audio-visual materials which would portray more closely the Tunisian reality focusing for example on specific issues facing population education in the country today. Any such production project, however, inevitably raises problems of cost and logistical support in the form of technicians and materials. The first question that arises is whether it is possible and worthwhile to study these problems now. As for the video tape-recorders, population education offered an interesting opportunity to use and experiment with its equipment and the results are very promising. But learning "on the job" is not necessarily the best or the only way to learn to use the materials, both in terms of the techniques and the teaching methods. The equipment would certainly be put to better use and the team members would learn faster if it were possible to organize for them workshops in *pedagogical training through video tape-recorders enabling them* to practice *on themselves* through "autoscopie" . For reasons which are easy to understand, we feel that the coordinators and the teachers in the project should also attend such training workshops.

In our opinion the training problems in the framework of the project are not found only in the domain of the *audio-visual techniques.* As we have already seen, the teachers and principals were given an opportunity to discover or at least to experience *new techniques,* and, in particular, group techniques and objective-centered teaching methods. We agree with the project promoters and group leaders that these techniques are especially well-suited to the seminars for several reasons: since the seminars last only a few days, the objectives should always be clearly defined; because the participants are adults and, what is more, they are educators; lastly because the themes are related to population education as it is conceived in this project.

Most teachers in the project have become interested enough in these techniques to use and to spread the use of at least some of them in their ordinary classwork. And this is exactly where the trouble lies, because it is impossible to assume that the short training received in the workshops and seminars enable the teachers to master these techniques. Our brief observations lead us to feel that these techniques have been quite often applied in a very narrow and exclusive manner; the nature of the subject treated, the age and psychology of the pupils are not adequately taken into consideration. It is essential to take these factors into account in order that the contents may be suitably adapted to reach the objectives; used in too systematic and stereotyped a manner, these techniques could risk becoming merely intellectual exercises. However, our observations did not last long enough for us to be able to make categorical statements. We do not feel the result is negative, either for the actual project or for the future. Our observations lead us to believe that population education has significantly contributed to creating an awareness of the *learning force which motivation represents and of the need to provide training in new teaching methods.* Population education has also revealed that in order to be coherent and effective, it should consider the possible ways and means to strengthen at the same time among teachers the theoretical base necessary to understand the concepts underlying these methods and the practical skills needed for the efficient application of these methods. Only with the theoretical knowledge combined with the practical skill will the teachers be able to apply these techniques appropriately.

But this proposal raises other difficulties besides the implied problem of resources. It is hard to imagine - in view of the plurality of disciplines and teachers - that the same students in a secondary school could alternately be taught according to *two widely differing teaching methods.* Don't the disadvantages that would result from this disparity in teaching outweigh the possible benefical effects of the new methods ? The question should be asked not simply from the point of view of teaching methods but it should also consider *the cleavage* that may develop within the teaching body. Two possible solutions can be envisaged to avoid creating this situation. Each of these solutions which are not mutually exclusive obviously raises new issues: either the duration of the training time for the teachers involved in population education should be lengthened and at the same time provision should be made to extend the project more rapidly or else a system *of continuous in-service training* of all teachers should be developed. Once again we can draw a positive conclusion from these reflections : these new methods and aspects of pedagogical training should already be introduced in *the pre-service teacher training programme.*

---

(1) cf. above Part I.

Now that these few points have been considered, we will turn our attention to two problems that in our opinion are of capital importance : one is of a *pedagogical and epistemological* nature and the other is related to the *science of cultures and to their encounter* as well as *axiology* and *philosophy*. They will be discussed below in that order.

2) *Epistemological and pedagogical problems* : integrating population education into the various disciplines and objective-centered programming.

Population education does not represent a distinct new discipline to be taught by specialized teachers charged with the task of teaching a specific curriculum. This aspect is so intrinsic to the project's conception that it barely needs repeating. Population education should be taught within the framework of the existing curricula - revised appropriately - by the teachers actually in practice, and who should be given complementary training. Admittedly, "*Integration*" is therefore the *key word of this education and its teaching methods*. In fact the basic foundations that were set up to implement the project can be explained by this concern to integrate population elements into the curricula, and the concepts of integration provides the backdrop for all the analyses made in this report. Integration should take place in such a way that in reaching the objectives set by his own discipline - which must continue to remain the main goal - the teacher also fulfills one of population education's objectives at the same time. This must be done in the most appropriate manner possible, depending on the discipline taught. This integration does not occur in a satisfactory manner, when one or more mishaps occur : either one objective is sacrified to the advantage of the other - and it might be the most important one which is lost - or else either or both objectives are unsatisfactorily reached. Another possibility can be that the course loses its unity and population education is awkwardly grafted on to the ordinary lesson or else it suddenly appears in an artificial way and turns into a lengthy digression.

This raises an important problem. Indeed the seminars provide the teachers with the knowledge that they need in a wide variety of fields such as biology, demography, economics, sociology and psychology. Besides the fact that not enough attention seems to have been paid up to now to the ways in which this knowledge can be adapted and taught to secondary students, it should be noted that the specialists who provide these courses - although they are rightly chosen because of their competence - are not inclined to step outside the limits of their specializations. In addition they have not been trained to teach in the context of an integrated educational approach. The teachers should be given this complementary training with a *multidisciplinary* approach but that alone will not be enough to enable them to directly apply an interdisciplinary approach in their own teaching. It seems that not very much is known about how the teachers actually carry out this integration in their daily lessons. It would be therefore worthwhile for the inspectors to observe the classes with this point in mind, but they should do so after explaining to the teachers that the goal in this instance is not to control or grade them but to research this particular point. In order for this systematic observation to be sufficiently methodical and coherent, it should be prepared beforehand in a seminar in which an *observation chart* could be developed or at least some *points of reference* could be singled out. This would open up two avenues of research. Not only would it then be possible to assess the degree to which integration of population education has in fact become a goal for the teachers and to see how it is actually applied. But also these observations and the resulting analyses could supply good research material in order to determine the most effective way or at least better ways of integrating population education. For the moment the test-lessons provide practically the only context in which the teachers can gain some experience and, as we already mentioned earlier, these test-lessons were specifically designed and organized so as to provide the teachers with a laboratory setting.

This need for more frequent and more methodical observations leads us, however, to reiterate some of the arguments. It is true that the test-lessons are indeed prepared and given as attempts to integrate population education and do include debates and discussions focusing on integration. Despite their usefulness and the wealth of information that they provide, they do not constitute a laboratory setting for carrying out research - even one which is conceived as *action-research*. If the above-mentioned observations were carried out and data were systematically collected, the material would be both vast and unified enough to allow comparisons and valid generalizations. Sufficiently reliable new materials could then be developed on the basis of these observations. In this connection, whatever the utility of the evaluation charts, they do not appear to be sufficient. Even though we do not intend to question the place which it would be worthwhile to reserve for action research in all the investigations, we will nevertheless add that it is difficult to be satisfied with this kind of research. Whether our observations are justified or not, we fear that if the present activities are the only ones that are proposed to be continued then the project would inevitably come to a standstill and it would become impossible to overcome the shortcomings that we think we have detected. It seems obvious to us that an epistemological study should be carried out before any problem regarding the relationships between disciplines, either of integration or even of coordination, can be solved. Before any new knowledge is introduced, it must by backed up by the epistemology of the science in question in order for it to be transmitted as successfully as possible. We are all the more convinced of this necessity when it is a question of an educational approach which aims to transmit knowledge from different domains in a coherent and inter-related manner. From this somewhat abstract analysis we will draw up some concrete proposals concerning the project. The first proposal is that scientific research should take an interest in the problem of integrating population education into the different disciplines. The second proposal is that, without waiting for these research results, the project may start a new phase of activities, with a new series of seminars and workshops devoted to exploring the *different theoretical possibilities of integration of population education, by taking each discipline separately, and by considering how these theories can actually be applied in secondary education*. These two proposals also clearly imply the necessity for assistance from research bodies of the university and other higher educational institutions and in particular from the Teacher Training Institute, for easily understandable reasons. It would be necessary to organize sensitization seminars so long as a certain percentage of the teachers has not been integrated into the project and this percentage should be determined without further delay. The workshops provide the teachers with the additional specialized knowledge that they require to integrate population education on a solid foundation. But the seminars devoted especially to the theme of integration will represent the cornerstone of this edifice. The Teacher Training Institute should join in with the university and other research bodies which are already providing support to the on-going seminars and their future contribution should be defined in an entirely new way. The specialist would still be present in the seminars as always but rather than working alone, he would collaborate with one or sometimes two persons from another discipline and even the teachers in order to devise ways in which certain aspects of a given course syllabus can be integrated. Henceforth the university professor would no longer be concerned only with his speciality but would also take at least equal interest in the population education project itself. Moreover the circle of specialists would be widened to include epistemologists, historians of sciences and techniques and would even include curriculum development specialists from the various disciplines. This call for collaboration would be meaningful and their help in the project would be effective only if they are really interested in this conception of population education. The university and all the professors should be made aware of population education and its activities. The ways to achieve this goal have not yet been clearly defined, but the symposium planned as part of the project could be a first step. This would ensure that the university professors participate in the various levels of collaboration and decision-making without however having the responsibility and control of the project change hands as a result. The seminars on integration should pay special attention to the experience that the secondary teachers have gained in the field and the results which they have obtained. There should be no fundamental changes in the organization and pedagogy of the seminars and sensitization or study days. Then it would be possible to see how the university and other higher educational institutions are in turn able to adopt some of the innovations that were developed as a result of their participation in the project.

It should also be mentioned that the teams who are actually working in the project have already begun this kind of work which have given some preliminary results. In this report, we already spoke of the attempts that were made to formulate for the benefit of the teachers some objectives that correspond closely to population education in its present conception. As we said before, the approach that was used to integrate population education was objective-centered teaching and it was developed in the following manner. One of the general topics included in the course syllabus was chosen from the list of themes which had already been drawn up previously by determining the themes that were related to population education : e.g. for the history course the relationship between population and the natural, economic and cultural environment (first year) ; the relationship that exists between the needs of any human group in particular and its human and material resources (fourth year). These themes represent the basic objectives that the teachers should try to reach. The next step was then to try to interpret these *general objectives* by stating a number of *specific objectives* that take into account the relevant topics from the course syllabus. The purpose of interpreting these objectives is to help the teachers achieve the discipline's main objectives without digressing too much from their discipline and to enable them to verify whether they have succeeded. This work is directly in line with the research findings and the activities that seemed to us to be crucial for the project's success. These activities should be developed more extensively in the coming phases of the project. Therefore everyone should be pleased that this work was undertaken and that the results have been so promising. As we know that this work is not to be considered as definitive, it is easier for us to draw attention to some aspects which could either be sources of confusion or create certain problems. It is obvious that this approach cannot be applied without difficulty in the case of certain disciplines where integration presents special problems. As the framework of this study is limited, we cannot dwell on these aspects but we will nevertheless discuss them briefly.

No doubt as a result of the ambitious but highly justified nature of the work related to objective-centered programming, what seems to have happened is that several different meanings were given to the term "specific objective". It applies not only to the objectives of each teacher's discipline (e.g. history) but also to population education and to the operational objectives, i.e. those that indicate the operations which the teacher must perform and the corresponding know-how he must transmit. It also applies to the objectives whose operational nature thereby enables phenomena to be observed and therefore evaluated. In reality when an effort is made to apply these ideas in practice, i.e. to formulate the specific objectives, this polysemy can create confusion which has a definite and obvious effect on the way the objective-centered programming is then drawn up. The concern to provide an objective evaluation tool, and consequently to state the objectives in terms of behaviour which can be observed and measured if possible, leads the educators to emphasize too vigorously perhaps the ability of the student to name, quote, list two or three or four facts, signs, properties or characteristics... Except when the goal is to specifically train the factual memory capacity, this approach is only worthwhile if the ability or possibility to name, list, etc. is itself dependent on an ability to use the intellectual operations on sets of problems of which the facts to be named or to be listed are the products. In the texts which were proposed to us, it does not always hold true that the students are required to go through an intellectual operation to produce these facts, signs, etc. in order to be able to reproduce them verbally. There is a risk that, as a result of this, the intended cognitive approach might be replaced by "rote-learning" which would be both dangerous and unwarranted. Out of this same concern for impartial evaluation, and probably based on an erroneous interpretation of the idea that population education should be closely linked with reality and provide an opportunity for direct action, the educators sometimes emphasize the *pragmatic nature of the specific objective* so much that there is a danger that the truly cognitive approach might be replaced by automatically-learned "know-how".

Assuming that this situation can be avoided, which is feasible if the specific objectives were formulated with greater care, two questions still remain unanswered. First of all, is treating specific topics included in course syllabus in the form of specific objectives sufficient to allow, by a general process of induction, access to all the knowledge that is implied by the basic objectives as they are now formulated ? Secondly, regardless of whether these basic objectives can be achieved in this manner or not, it is important to realize that the teaching approach used for each discipline is strongly influenced by the definition that is given to the general objectives, i.e. by the different themes of population education. This implies for example that in teaching history from the outlook of the current trend that is being promoted by those who are sometimes called the new historians, a great deal of time should be devoted to demography, economics and the study of civilizations and cultures. If the educators are not aware of these implications, they will not be able to deliberately take a firm stand on the approach to be followed, or else they will refuse to take it, knowing all the while that their refusal would mean challenging the actual conception of population education if not the very idea of population education itself. Therefore, it is important for the educators to explicitly and firmly make this choice before the teacher training programmes can be clearly defined and developed. It is here that one can see that population education has a *much broader and deeper effect on the philosophy, contents and consequently the methods of secondary education than it would seem at first.* Once again it can be seen that teacher training in population education must not be limited to the seminars alone and that further investigation and research should be carried out with a view to developing both pre-service and in-service teacher training programmes.

3) *Cultural and axiological problem : population education considered from the angle of norms and values*

It is somewhat dangerous to treat questions included in course syllabus as specific objectives to be expressed in the form of an ability to name, to quote, to list, etc. For, no determinism, scientific law or knowledge can provide such correct and exclusive answers that it would be impossible to challenge them or that it would be perfectly useless to want to ignore them in every-day life. Because of their very nature, some economic and political problems as well as problems related to individual and social moral conduct require thinking and judgement. Without leaving us in a state of absolute indetermination or uncertainty these problems leave us enough room to exercise liberty of opinion and in our conduct a certain freedom of choice with reference to what we believe to be true, good or right. Human behaviour is based on norms and is not determined and ordered as are natural phenomena which obey laws. Therefore - and this is where the difficulties in training are to be found to which we should like to draw the reader's attention - if topics in course syllabus that are related in some way to moral, civic and religious education, to political and economic systems and even to sociology, are stated in the form of specific objectives having to be expressed in terms of to "quote", "name", "say", "without any mistakes", "what is good and what is bad" then there is the risk that it might create the feeling that one has been deprived of the right to exercise one's judgement, one's freedom and all possibilities of making a choice. Thus by a remarkable paradox the modernity of a method like objective-centered teaching could apparently serve to promote moral conservatism and education would then appear to be in contradiction with its own principles and philosophy. The epistemological and pedagogical problem of integrating population education arising in the elaboration of objective-centered curricula leads us to mention what we consider as the second and most significant danger : that of norms and values, which are of a cultural, axiological and philosophical nature.

The project promoters and leaders clearly realized that population education would soon have to face the problems related to the norms and values that - in a more or less relatively conscious or well thought out way - inevitably determine human behaviour. They also realized that this education would introduce into the school work areas of knowledge and problems as well as possible behavioural patterns which, in turn, would challenge the moral practices established by customs and traditional patterns of life. They also fully understood that these customs and rules could neither be totally rejected nor abruptly changed - even in part - by a direct attack, whatever be the requirements of the circumstances and of modernity. What the project wanted to show was that it would give everyone the knowledge which would lead to reflection that shed light on possible choices. The policy of the project leaders was to encourage each and all to step back and view his own norms and values within a broader context in order to avoid uncompromising or fatalistic attitudes which lead to a refusal to exercise personal freedom and to assume responsibility. The result of this can be that a person then uses the fact that he adheres to customs as an alibi to justify his refusal. The people who show such attitudes of refusal are also hostile to any mainfest differences or changes, even among those who remain faithful to the spiritual values that they proclaim and those who would enable these very values to be strengthened by inspiring behavioural patterns that are more in tune with the conditions and spirit of the time. In order to carry out its policy, the project team designed the seminars with a two-fold goal : first of all, to provide the largest amount of data and knowledge so that the different choices would be more clear-cut, or in other words so that freer and more responsible choices would be possible. At the same time the norms and values were also analysed in order that the participants may become aware of and criticize the underlying phenomena of ethnocentricism and egocentricism and understand the concept of relativity with respect to human norms and values.

To our mind this policy is perfectly justified provided that it represents only one phase of a more extensive and long-lasting demarche. If such was not the case, two major objections could justifiably be made.

This would mean that either one does not know or does not accept the fact that this axiologic relativity applicable to certain specific norms, customs and moral should be tempered and compensated by the recognition of universal rights that transcend time and culture, guaranteeing each person the basic respect that is due to each human being. These rights are universal and intangible as well.

This would also mean forgetting that the unconditional supporters of traditional customs and rules of conduct, who are hostile to any open-mindedness and changes, also claim to have the right to be different and the right to a cultural identity, not in the name of individuals but in the name of the nation and the civilisaton to which they belong. The existence and legitimacy of the different systems of norms and values within diverse cultural zones must indeed by recognized. These systems deeply affect the life styles, attitudes of mind and world views. Without these systems nations and peoples would not have cultural identities. Refusal to recognize them is to invite accusations of cultural treason and subversion of national values instigated from abroad. Whether one likes it or not to proclaim adherence to universal values in this case will always appear as a disguised and consequently especially dangerous form of cultural imperialism. But on the other hand a true recognition of these universal values also gives the right and the task to dissociate oneself from everything in the present attitudes and customs that are often incorrectly called traditional but which no longer represent their authentic reflections. One also has the responsibility and the task of bringing new life to these universal values by embodying new or modified behaviours which guarantee their renewal or revival.

The mission of the civic, moral and religious educators, who often partake in this quest, is to share the lessons that they have learned with others. With the help of all the educators, the project leaders would be in a better position to more effectively determine the specific objectives of population education. And consequently the educators would then be better prepared to overcome the opposing forces and to convince the general public that the objectives that are being strived for represent some of the many meeting points between the national norms and values and the universal ones. The national norms and values could then be considered as deeply rooted, concrete and living expressions of the universal values.

MINISTRY OF EDUCATION
POPULATION EDUCATION PROJECT

ANNEX I

LIST OF SECONDARY SCHOOLS INTEGRATED INTO THE POPULATION EDUCATION PROJECT

School	Director	Integration date
TUNIS Regional Delegation		
1 Lycée Ibn Charaf	M. M. ZBOUNA	11/75
2 Lycée El Omrane	Mme S. BOULEHYA	4/75
3 Lycée Montfleury	Mme A. FARHAT	73 - 10/75
4 Lycée Tech. Rades	M. A. BEN NEJMA	2/76
5 Lycée J.F. Carthage	Mme D. ZOUARI	11/76
6 Lycée Bab Djedid	Mme Z. BELLIL	10/77
7 Lycée El Ouardia	M.M. MGANEM	10/77
8 Lycée Hammamet	M. M. HMIDA	10/77
9 Lycée J. F. Nabeul	M. A. MELLOULI	12/77
10 Lycée J. F. Rades	Mme M. MABROUK	1/78
11 Lycée El Menzah	Mme H. KACHOUKH	3/78
12 Ecole Normale de Korba	M. A. SALLAMI	12/77
13 C.S.P.F. Jemaa El Hawa	Mme Ch. AZIZI	1/78
14 C.S.P.F. Hamman-Lif (1)	Mme Kh. AZZABI	1/78
+ College Sadiki		11/76
BEJA Regional Delegation		
15 Lycée tech. du Kef	M. A. FADHLAOUI	12/76
16 Lycée J. F. Bizerte	Mme N. TOUMI	4/75
17 Lycée J.F. Béja	M. T. HAMROUNI	2/75
18 Lycée J.F. Jendouba	M. H. GUISSOUMA	10/75
19 Lycée Tech. Jendouba	M. N. GUEDDAS	10/75
20 Lycée Ras Jebel	Mme R. BAKLOUTI	2/75
21 Lycée Tabarka	M. M. REJAIBI	10/77
22 Lycée Tajerouine	M. A. SAMMARI	10/77
23 Lycée Seliana	M. M. BALLOUM	12/77
24 C.S. le Kef	M. H. Ben Med TAHAR	3/78
25 C.S. El Ksour	M. H. BEN YOUSSEF	4/78
26 Lycée mixte de Béja	M. M. GAHGOUH	10/78
SOUSSE Regional Delegation		
27 Lycée de M'saken	M. A. B. H'MED	11/76
28 Lycée de Kalaa Kebira	M.H. FATNASSI	11/76
29 Lycée de Moknine	M. M. MASMOUDI	12/76
30 C.S.Enfidha	M. E. AZAIZ	5/75
31 L. Ibn Rachiq Kairouan (1)		10/76
32 C.S. Kasserine	M. M. EL AMRI	5/75
33 Lycée J. F. Kasserine	M. A. MAHFOUDH	12/77
34 Lycée Tahar Sfar Sousse	Mme F. ESSAYEH	11/76
35 Lycée El Ouerdanine	M. M. Ben DHIA	1/78
36 Lycée Cité Ezzahra Sousse	M. A. EL BAHI	1/78

37	Lycée Ksar Hellal	M. M. STAMBOULI	2/78
38	Lycée Tech. Monastir	M. M. DEBBABI	2/78
39	Lycée Hamman-Sousse	M. O. KHALFALLAH	3/78
+	Lycée El Mansoura Kairouan		10/76

SFAX Regional Delegation

40	Lycée 15 Nov. 1955 Sfax	M. A. ZGHAL	6/75
41	Lycée 25 Juillet 1957 Sfax	M. M. KAMMOUN	5/76
42	Lycée Tech. 20 Mars Sfax	M. M. TURKI	5/76
43	C.S. 1er Juin 1955 Sfax	M. N. AFFES	5/76
44	Lycée Tech. 9 Avril 1938 Sfax	M. M. MASMOUDI	5/76
45	Lycée Majida Boulila Sfax	M. M. SALLAMI	5/77
46	Lycée Toneur	M. M. SOUDANI	6/75
47	Lycée Tech. Ibn Khaldoun Gabes	M. B. DJERAD	10/76
48	Lycée de Mednine	M. B. TALMOUDI	11/76
49	Ecole Normale de Gafsa	M. H. REGAIEG	2/77
50	C.S.P. Gafsa	M. M. B. AMOR	1/78
51	C.S. Ksar - Gafsa	M. Med T. GARGOUBI	1/78
52	C.S.P. Mongi Slim Sakiet Ezzit	M. M. EL EUCH	3/78
53	C.S. Ali Belhaouane Sfax	M. A. BELLASSOUED	3/78
54	C.S. Habib Maazoun	M. B. KAMMOUN	4/78
55	Lycée Habib Thameur Sfax	M. A. HADJ TAIEB	4/78
56	C.S. Hedi Chaker Sfax	M. H. KANOUN	4/78
57	C.S.P. 15/10 Sfax	M. M. JABEUR	4/78
58	Lycée Tech. Abou Kacem Chebbi Gabes	M. T. ROMDHANE	3/78
59	C.S. Hedi Essoussi Sfax	M. M. MAAZOUN	4/78
60	C.S.P. Mohamed Ali Sfax	M. A. TAHARI	4/78
61	C.S. Ben Guerdane	M. Z. DACHICHA	4/78
62	C.S. Ghomrassen	M. A. BOUSSARSSAR	4/78
63	C.S. Tataouine	M. R. EL KOUNI	4/78
64	Lycée de Zarzis	M. H. JARRAR	4/78

(1) Secondary school already taking part in the project with a new principal.

(+) Secondary school which has had a group of teachers attend a seminar.

MINISTRY OF NATIONAL
EDUCATION
POPULATION EDUCATION
PROJECT

ANNEX II

TRAINING DOCUMENT N° 9
SENSITIZATION SEMINAR PROGRAMME

Session N°	Duration	Aims	Methods of work
First day			
1	90 mn	Presentation of programme	Group work
2	60 mn	Expectations and motivations	Projection techniques
3	90 mn	Objective centered teaching	
4	30 mn	Institutional objectives of the Project : Population Education (PE1)	Group work
5	90 mn	Institutional objectives of the project (PE2)	Panel discussion
Second day			
6	30 mn	Review control session	Group work
7	90 mn	Population and development (1) Simulation and role playing	Group work
8	120 mn	Population and development (2) Discussion	Panel discussion
9	30 mn	Introduction to the biological aspects of population education	
10	25 mn	Projection of film : "Human reproduction" (H.R.) - Arabic version	
11	45 mn	Anatomy and physiology of human reproduction	Discussion with a medical doctor
12	25 mn	Projection of film : "The first days of life" - French version	
13	45 mn	Pregnancy and delivery	Discussion with a medical doctor
14	45 mn	Sex education and the biological aspects of population education	Group work

188

Third day

15	30 mn	Review control session	Group work
16	60 mn	Population / Norms and values (1)	
17	120 mn	Norms and values (2) Simulation and role playing	Group work and Panel discussion
18	60 mn	Control of fertility (1) : – sterility	Group work and discussion with a medical doctor
19	120 mn	Control of fertility (2) : – contraception methods – abortion – sterilisation	”

Fourth day

20	30 mn	Review control session	Group work
21	60 mn	Preparation of a test-lesson	”
22	60 mn	Preparation of a para-school activity	”
23	30 mn	Organigram of the project	”
24	30 mn	Evaluation of the seminar (written)	”

GROUP LEADERS : One member of the Central Team of the Project
One regional coordinator

EXPERTS : One medical doctor
One demographer
One Psycho-Sociologist

CONCLUSION

It is evident from a reading of these studies that the four projects originated in countries which present certain important similarities both from the point of view of demographic characteristics and of the problems raised by the phenomena of population dynamics. Indeed, all these countries were experiencing a high population growth which they had to take fully into account both in their respective economic and social development plans and in the elaboration and implementation of cultural and educational policies when the idea of a new population education was initiated and projects in this area began to develop.

It is therefore not surprising that educational institutions in these four countries were endeavouring to find remedies to the difficulties at national, community and family levels while the governments and decision-makers at the highest levels were engaged in finding solutions to these problems in terms of a population policy within an overall economic and political context. This policy which was approached rather timidly in the beginning was gradually developed and put into practice even before launching the population education projects. It included, in all the cases, a set of legislative measures related to population.

In all these countries, it was realized from the very beginning that these legislative measures would either remain dead letters or be erroneously interpreted, or even rejected on the basis of misleading interpretations unless an appropriate education is developed which would take into account the traditional values and attitudes of the people, and would be geared to obtaining peoples' acceptance through suitable, but often limited, educational action, based on an accurate and extensive understanding of national population policy. Such an education should also reach the mass of the student population in a significant way, particularly at the large base of the age pyramid. Indeed, these young people, because of their education and training would be in a position to exercise a certain influence on their families and may even constitute if not necessary links, at least useful intermediaries in providing population education to adults. Finally, it is among these student populations of today that one finds those who will exercise in the future significant influence at the national level or those who will occupy positions of responsibility and of decision-making.

It is understandable therefore, that the idea - which had already been promoted and even experimented with on a small scale by the initiators of the idea, that population education should be introduced in the educational system, was taken up once again and efforts were made to examine whether it should be introduced throughout the system and what should be the order and manner of introduction both from the institutional and from the content and methods points of view.

Fortunately, in the different countries concerned, the governments and particularly educational authorities, realized that in order for innovation to succeed, it was essential first of all to define the objectives of population education, to disseminate the information about its conception widely among the teachers and the public, and to clearly distinguish it from an education geared to birth control. In so doing, the promoters and designers of the projects succeeded not only in fulfilling the strategic requirements but also in giving expression to the basic conception of this education as well as their deeply felt conviction which stimulate their action in this area.

This basic conception and general goals of population education give rise to certain commonly shared key ideas which should be underlined. First, the effort is geared to convince - and subsequently to prove through a new education which is properly developed and set up - that it is not a question of imposing, through various types of conditioning, new standards of sexual and family behaviour on individuals. On the contrary, its aim is *to provide every individual with the knowledge of a set of demographic, social, economic and ecologic data*, and thus enable him to exercise freedom of choice based on knowledge. This knowledge and data will be such as to shed light, in given situations, on the relationships between these behaviours and the harmonious development of the individual in the context of the well-being of the family, and the quality of life of all its members. It will attempt to show how the study of population phenomena helps to clarify the relationships between the *well-being of the family and the development of the individual* on the one hand, and between *public welfare and socio-economic development* on the other. But in this regard, it will emphasize that population education is not concerned with formulating postulates by taking for its main theme the simple and one-sided relationship that should exist between demographic standards and the conditions of economic development. On the contrary, its aim is limited to emphasize, in order to understand better, the role that population factors, among the several other factors, can play in the development of the country. It will naturally attempt to examine the existing relationships and how these links should take shape in the future in the national context. Finally, it will attempt to show how population dynamics cannot be explained away simply by the sum total of deliberate individual behaviours or even by the economic, social or cultural factors alone, but rather that these behaviours are not themselves independant of these factors. Symetrically, it will be based on the idea that population dynamics and the related phenomena have economic, social, cultural and ecological consequences. As a result, *population education should include the analyses of these reciprocal relationships and not limit itself to sex education and demographic education.* It is by becoming aware of and acquiring knowledge about these relationships that the freedom of choice can be exercised by using this knowledge. For these objectives are complementary to one another and converge towards each other.

Naturally, it was useful to translate these general objectives in terms of specific objectives and action objectives; out of these emerged the need to develop and set out the means needed to attain them. This required strategies of implementation and decision-making in regard to two major sets of problems and demands. The first set includes the choices to be made with regard to the sector and levels of education and training for the introduction of population education and the institutions which will be given the responsibility for implementing the project, and for its administration and expansion as well as for carrying out related research and development activities. The second set may include, on the one hand, the modifications and innovations introduced into the curricula and content of education and on the other hand, the innovations introduced into teaching attitudes and practices and into educational methods and activities.

Through a quick comparative study, we will show how, in terms of the elements included in the first set, the four projects, without being either opposed to nor radically different from one another, nervertheless present noticeable differences which are of significant value for the future development of population education and more generally, for the science of innovation in educational system. Through a similar study, we shall show subsequently how these four on-going projects, except for certain differences, are remarkably similar to each other. The supporting studies and advisory services provided by Unesco is most probably one of the principal reasons for this similarity. On the basis of these various innovations, we can declare without hesitation, that they already exercise and shall exercise still more in the near future, long-lasting and strong influence going beyond the initial area of application and affecting the entire educational system.

It would appear that the final aim in all the four countries under consideration was to introduce population education in all sectors and at all levels of education and training. But there are differences between the four countries with regard to the sector and level initially chosen for the implementation of the strategy of innovation, its introduction and development. The analysis of the *Tunisian project* shows the reasons and the previous experiences on the basis of which the authorities had decided to focus their effort on Secondary General and Technical Schools (Lycées). Except for the participation of their professors, the University is not involved yet in the on-going project through its own programmes. Teacher Training Institutes and the Higher Teacher Training Institute are also not taking part in the project. This means among other things, that the educators are themselves trained through different methods of in-service continuous training. *El Salvador*, for its part, selected the "basic school" (providing basic education in 9 grades subdivided into 3 cycles of equal duration, to children between 6 and 15 years of age) as the initial area of experimentation by implementing the programme to begin with in the 3rd cycle. But after taking into acount the high early drop-out rate, the social significance of young people almost ready to enter active life, just as in Tunisia, and the large number of young people and adults who stay and are likely to stay for some time outside the educational system, the project leaders subsequently decided to extend it to all the cycles of "basic education", secondary education and to adult education provided in both formal and non-formal sectors. Just like in Tunisia, neither teacher training institutions, nor the University are yet involved in this project. Needless to say, this extension meant the development of new strategies and new approaches to training and development which we shall soon examine very briefly. The *Philippines*, equally concerned with providing at least the basic elements of population education to all children and taking equally into account the high early drop-out rate which will not reduce from one day to the other, also designed its project to cater for the primary school (of 6 years duration) and the secondary school (4 years duration). But already the teacher training institutions are affected by it. The University is also interested in it without being either truly involved or taking part in it. On the other hand, the project does not cover, for the time being, adult education. Finally, in the *Republic of Korea*, population education covered, as we have seen, the entire educational system, including all types and levels of education and training. Although the initiatives taken by the higher education institutions are highly encouraged, and four Universities have in fact introduced this education in their curricula, their participation in this endeavour is still modest. The situation is similar in the area of extra-curricular activities where training is provided by the media and multi-personal contacts and by courses which receive government assistance but which are still semi-official and often informal.

In terms of institutional set up, all the projects are national and official in character. All of them are attached to or directly depend upon the Minister of Education. In all the cases, national teams are responsible for the projects although they are assisted considerably by the studies and advisory services of Unesco. It is important to identify and assess the role of all these institutional characteristics, as it will help us later to analyse their success or failure and to draw lessons for the future, either for similar projects or more generally for educational innovations. Nevertheless, the four countries have not adopted the same policy, or organizational set up or administration for the project. In *Tunisia*, the early transfer of population education to the Ministry of Education did not, however, give rise to the establishment of a new Department or Division the Ministry. Except for the Director, the extremely small national team operates in a non-hierarchical structure. Although it plays an essential role in the conception, coordination, planning, production, research and dissimination of documents, the national team cannot fulfill its tasks at the field level without the support of the regional bodies. Even these have not led to the creation of special administrative bodies or administrators. The activities are developed within the framework and support of existing structures and with the help of the teachers themselves. In the *Republic of Korea*, although the vice-Minister of Education is the director of the project which comes directly under the authority of the Minister and is assisted by an advisory body composed of researchers and planners responsible for promotion, coordination and supervision, the introduction and development of this new education necessitated the creation of a "National Bureau for Population Education". In *El Salvador*, population education was introduced within the framework of an overall educational reform, decided upon in 1968 and aimed at making it one of the development agents. Population education was almost inevitably affected by the different adminstrative changes accompanying the programming and implementation of the reform with which it was linked for its own implementation. Thus initially attached in 1974 to the Directorate of Adult and Lifelong Education, it was transferred, in 1976, to the Directorate of Educational Services, which itself received guidance from a "Family Education Committee". Under the authority of the Minister, the Committee was composed of representatives of several Directorates of the Ministry. That is why population education has already been integrated into the common core subjects, the biological sciences and into the ten categories of "Bachillerato" courses, introduced by the reform. It has also been given an extensive coverage in the academic stream of "Bachillerato" by introducing it into the other common subjects (mathematics and physics). But, as the study of the Salvadorian project underlines, population education is absent in the pedagogical "Bachillerato" course. In a like manner, population education in the *Philippines* was introduced in the new curricula developed in the framework of an educational reform (1972) and was also geared to the preparation of students for entry into active life and for professional training. The responsibility of operating this new education was first given to a special unit attached to the Ministry. But it was not attached to any existing Division or Department, but placed directly under the authority of the Minister. It was only later that official recognition was given to it by the creation of a new Division within its own organigram composed of a Head of Division and the Chiefs of four Sections: Research, Training, Curriculum and Administration, as well as technical personnel. It should be underlined, however, that the Secretary of State continues to be the Director of the project and the Division is essentially an executive body.

Let us conclude the analysis of the first set of remarks by examining the policy followed in the different cases, with regard to research and development. One could say that except for the general studies undertaken by Unesco and the lessons drawn from the field experiences attempted by a number of educators who are the original promoters of the project, hardly any research was carried out in *Tunisia*. The University was not requested to carry out socio-cultural, psychological or epistemological studies, nor did it take any initiative in this regard. The Higher Teacher Training Institute also did not participate in conducting pedagogical related research. Nothing has changed in this regard although the project is under implementation and development. This does not mean that research is totally absent. It takes essentially the form of formative evaluation and outside the experimental school, the form of action-research in the training seminars, the test-lessons and extra-curricular activities each of which provides the laboratory setting. Although extension of the training programme constitutes one of the general aims of the project, no other training, except those for and in secondary schools is either envisaged or under implementation. At present, training is given directly by the central team and the "resource persons" invited by it. Thus, the training programme is being developed without true multiplying agents, if not for stimulating interest and involvement in the project, at least for fostering local support from the professors who have already received such a training. Neither textbooks nor guides or at least special teams to prepare them exist. Mass media's contribution to population education development can be considered negligeable. The use of media continues to be weak in *El Salvador* as well; there was not much research either. But the on-going project related applied scientific research, as well as the various "action-research" activities help project development. Schools were selected to constitute pilot-schools where the teachers were given special training in the necessary skills. Research was conducted particularly on the 2,900 pupils of the 9th grade of basic school. Other research activities are being carried out either in consultation with, or the assistance of, or even under the responsibility of the University. Guides and manuals were prepared and evaluated. It is envisaged to develop in-service training programmes with the assistance of "catalysing agents" who themselves are specially trained for this work and who operate in the ten school districts. In order to evaluate the impact of this approach, it may be noted that there are only 30 "catalysing agents" and as they work full-time as teachers, they can devote only the weekends for population education work. It is true, that in addition to these agents, the inspectors who as the true promoters of the project, actively attempt to identify among the teachers and in the community, "resource persons" able to immediately and effectively contribute to this training. But until now the initial training was almost totally absent, which is also the reason why there are no population education texts in the pedagogical "Bachillerato" courses, revised in the context of the reformed curricula. The *Republic of Korea*, more than Tunisia and El Salvador, carried out preparatory research related, on the one hand, to the socio-cultural problems of population education (six studies) and on the other hand, to certain major inventories related to knowledge and attitudes of teachers and students in this area, and those related to available teaching materials. Other research activities contracted to the Universities are geared to facilitating the development of the project. Some of these include new socio-cultural studies aimed at identifying, and analysing, for example, the attitudes of parents towards population education. The others - more directly related to educational aspects - deal with, for example, the assessment of knowledge and of curricula, pupils' attitudes and teaching materials. The evaluations have been made according to a well established programme. They are not only formative but also summative. The experimental schools and longitudinal studies should enable, for example, the assessment of the impact of this education on the pupils at the end of primary and secondary education. The country aims at providing both extensive and accelerated continuous training. Two major inter-linked means are used to attain this goal : first, short but repeated summer courses and seminars, and second, "catalysing agents" but much larger in number than in El Salvador. The summer courses are essentially provided by higher educational institutions and are mainly aimed at primary and secondary education personnel, and at the Directors of the Institutes of continuing training. Instructors and teachers in turn receive their training from them in seminars lasting two to five days and generally organized for groups of 50 participants. Two Universities located in the capital and four in the provinces provide the initial training for the trainers. But this is being undertaken at a modest level. Also modest is the role of mass media with which no special links have been established. We have seen, however, and it is important to note that mass media was used to launch an opinion campaign aimed at differentiating population education from family planning and at removing the false idea among the public that the former is only a new form of the latter. *The Philippine* project is close to the Korean project in terms of research and training policy. Social anthropological research and socio-cultural studies have been undertaken there. Also a great deal of importance is attached to the preparation and evaluation of guides and textbooks and to the formative and summative evaluation of programmes and methods. Accelerated and continuing training on a massive scale is also provided through multiplying agents and particularly the inspectors who after undergoing a five-week training become in their turn "organizers" of seminars for instructors and for teachers, held separately. Thus, according to the Philippine study, some 187,000 instructors (75% of the total) and 15,600 teachers (20% of the total) have already received this training. However, certain differences may also be noted. First of all, population education has been introduced into the primary teacher training programmes on a much larger scale than in any other case. Another innovation which is in harmony with the previous one is the introduction of a special course on population education lasting one semester for student trainees in teacher training institutes. The University of de la Salle has introduced such a course for the benefit of its students and more particularly, the future teachers, and in doing so has combined innovation in methods (such as non-formative teaching, training modules, group work) with innovation in content. Finally, it would appear that a great effort has been made for popularizing the idea of population education and the project, and to involve the educational personnel at national level in the development of the programme.

Thus we come to the end of the first set of comparisons. The order in which we have analysed the four cases and identified in relation to the elements in the first set, their major differences, is not of either decreasing or increasing value, leading to the establishment of any hierarchy. In terms of the ultimate purpose and general objectives of the project, it is not possible to make any definitive evaluation of their contribution either positive or negative. Whatever be our opinion with regard to the researches and formative and summative evaluations undertaken and given that the innovation is likely to affect the educational system as a whole, we do not think that their nature and volume as developed during the course of the setting up and implementation of the project, is a guarantee for the success of the whole operation. The success depends on too great a number of important factors that it is difficult to isolate one among them as a decisive factor or even as a privileged guarantor of their success. Only the future events will show which of these factors composing the different strategies was or were most relevant to the ultimate purpose and the general objectives. This means that we attach the greatest importance to the continuous observation and subsequent analysis of the different projects. For, in our view, it is the only way to be able to determine a maximum number of factors and agents which have come to play a role, and their interrelationships - coherent or incoherent ; and to then identify the various coherent relationships and the one that was most suited to the reality. We do not underestimate the existence of diversities in the reality and we think that certain factors of success or of failure are dependent on the specificity of regional characteristics. This does not in any way undermine the importance of case studies ; on the contrary, it increases its importance as well as its efficiency by allowing for a comparative study which is doubly useful. It helps the identification of factors and agents of a relatively specific nature which can then be used to further strengthen, introduce or weaken them in sufficiently similar cases. At the same time, it also helps to differentiate the other factors and agents which are more or less common to the different cases so that, on the basis of an understanding of their respective roles as well of their combined roles, it may be possible to undertake generalizations, however limited, and effect transfers to other cases.

*

Let us now examine the second set of questions posed and choices required by the introduction of population education in the educational system. The responses given and the choices made - the different case studies show that the responses and choices are in great measure common and are important, full of potentialities and long-lasting - will be examined in relation to two aspects : the strategy of innovation and the different innovative effects of the major innovation.

The first question raised was whether population education should constitute a new discipline, thereby necessitating the preparation of an entirely new and separate curriculum and the training and appointment of specialized teachers of a new kind. The response to this question - the project studies have shown - was negative. Everywhere it was decided that population education should be integrated *into the subjects already being taught* to the extent and in the way possible, either in the context of curriculum revision undertaken in the frame of an overall reform of the educational system or by suitably adapting and amplifying existing curricula. Thus, everywhere multi- and inter -disciplinary approaches were adopted.

This common choice was in harmony with the philosophical goals and the general objective which again were similar in all the projects under consideration. If population education were conceived and taught as a separate and distinct discipline, it would automatically and almost inevitably result in specialization - particularly in the context of existing educational systems and training structures - which would be variously oriented for example, towards demography or human reproduction or towards sex education. It would then be extremely difficult to stop these specialists from conceiving population education according to their likes and dislikes. This will be in contradiction with the way in which population education was conceived and its general objectives according to which it is impossible to separate population education from the various factors - demographical, economic, social, cultural, etc. which affect the population phenomena. This choice was also in harmony with a strategy of innovation which was aimed at limiting to the minimum, the creation of institutions or bringing about structural changes in the Ministry and in the existing institutions without however, affecting the content, the novelty and the impact of population education. It is this strategy which provides the basis and the justification for a development policy based on continuing training with regard to the teaching personnel.

This common solution to the major problem related to the status of this new education, in the form of its integration into the other disciplines and the existing curricula raised in its turn a equally important but more specific question. How to bring about this integration, by what means and according to which methods ? Two solutions, each of which is not mutually exclusive, were proposed and applied, and to some extent evaluated. The first solution consisted in introducing into the course syllabus of a given subject, sequences and study units related to population phenomena and linked to the subject concerned. An effort was made to reduce or eliminate the risk of dispersion implicit in this method by endeavouring to integrate the concepts and by introducing a system of verification of correlations. This approach in turn led to the preparation of training modules. The second solution, consisted in providing population education in the ordinary classes in a maximum possible number of subjects. This is done by means of examples, illustrating general knowledge through specific knowledge applied to the population phenomena. This method was not well adapted for treating the subject with either continuity or coherence. An attempt was made to overcome this deficiency by developing objective based curricula and model-lessons based on objective centred teaching. This second solution had the advantage of facilitating evaluation.

The innovative effects of this approach and the specific methods used to apply the approach are many. Several of these are related to the *teachers*. The acquisition of new knowledge and exposure to new fields of knowledge often awakened or strengthened their scientific and cultural curiosity and eagerness. Often, it also created or developed among them a great interest for social affairs and a strong sense of responsibility in regard to national development. One would observe in particular a new awareness with regard to the relationship between the life sciences and the society. Access to other disciplines particularly encouraged them to engage in both extensive and close discussions with their colleagues. It also led them to attempt "team teaching" and to think of other forms of concerted teaching.

Thanks to the new pupil-centred teaching, they became aware of the need and manifested an increasing concern to link the general to the specific and the abstract to the concrete. While providing them with the elements required to fulfill their concern, i.e. the means to link life and school, this approach enabled them to become aware of the usefulness and the significance of evaluating their own teaching practices.

The innovative effects on *students* were no less important. Access to new knowledge enabled them to find answers to their deeply felt questions and concerns. While creating or developing among them the motivation for learning, these responses also helped them to be better prepared for making choices with regard to their subsequent studies and above and beyond it, in their lives. The mere fact of having access to this new knowledge, or of being able to talk about those subjects which were hitherto little spoken of or not talked about, gives them a new and more stimulating image of the school. It introduced among them and more particularly between boys and girls more easy-going and simple relationships. Similar were the effects in *pupil-teacher relationships*. Although limited, the integration of disciplines gives them a better feeling about the organic unity of knowledge and it can be said that it leads to a better structured cognitive behaviour, more favourable to learning. For decompartamentalization of subject matters facilitates the *decompartamentalization of the school and the milieu* and thus contributes for the more positive and stimulating image of school to become a reality.

Through spontaneous extension and induction the entire educational system begins to feel the impact of these effects or is affected by them. In essence it can be said on the basis of these case studies that through the perspectives it opens up, the problems it raises and the achievements it makes possible, population education *renews the interest in interdisciplinarity and gives momentum to carry out the needed experimentation and research.*

We believe that our conclusions and reflexions in the context of this second set of analyses should be related to this theme which brings out the major similarities between the projects. The various methods of integration being presently applied or attempted are neither always satisfactory nor well applied. Nor are they the only or perhaps even the best methods that can be used. This is not surprising because the problem is as difficult as it is important. We think that there are three ways of reaching a solution. It can be said, first of all that the difficulty involved is both evident and acute since it cannot be fully solved in an empirical or intuitive manner. It calls for theoretical research of an epistemological nature combined with other psychological and sociological studies which take into account the variables that cut across each other : the age, background, the degree of training and the cultural level of the teacher. This requires an increased and more extensive participation of higher education institutions, and research centres in research activities than is the case at present. At the same time, it would be wrong to think that the solutions are exclusively epistemological and scientific in nature and thus neglect the results obtained through action research in the field and educational practice. That is why we think that primary and secondary level teachers should be enabled to contribute more and in particular participate in the preparation of modules and in the definition of specific objectives. Finally, we feel that the difficulty of the task is related also to the degree of importance given to the initial training of teachers. Given the present stage of the projects, particular attention should be given during the next phase of the projects to resolving these two problems : *integration and the development and implementation of pre-service training programmes for teachers.*

In the four cases, it would better not to introduce radical changes in the structures and the programmes, but to innovate in the area of methods and activities. In addition to the two major means that we have just mentioned and which are based on content, it is in the methodological innovations that other tools of integration can be found. Here again, the impact of the studies and advisory services of Unesco are noticeable in that the four cases are so remarkably similar. In all the seminars and training courses, assistance is sought from both "resource persons" - who normally work outside the educational system and are engaged in activities directly relevant to the milieu, and the specialists of higher education and scientific research. Everywhere it is regarded, and rightly so, that the use of active and participatory methods with all its modern outfits, (the utilization of new teaching aids particularly the audio-visual equipment, group work, surveys and discussions, case studies simulation of situations and role-playing, panels and brainstorming methods) is perfectly suited to the goals of population education which aims at preparing responsible men, capable of critical reflexion and debate, of exercising freedom of choice, of opinion and accordingly taking decisions adapted to the situation. This complementary training constitutes for most of the teachers and educational personnel, a real opportunity for making a total discovery, or aquiring better knowledge and above all, for gaining personal experience with these new educational methods and activities. This methodological approach has a number of innovative effects on the teachers, in relation to both the content and the programmes : the renewal of pedagogical curiosity, (along with scientific and cultural curiosity), professional motivation and the pleasure of teaching, the development of new relationships with their colleagues, pupils and the surrounding milieu ; and the reconsideration of judgements and opinions by questioning each one of the norms and values outside the school ; as well as and above all the application of these discoveries, new methods and techniques, new attitudes and this new spirit in their daily class-room practices. These innovations on being transmitted to the students, ensure a large dissemination covering all aspects and moments of education. These innovative endeavours on the part of the teachers help the students mainly to strengthen and extend those innovations introduced into the curricula and classwork by population education in the form of new content and methods. From a general point of view, it is in this deeper influence on the very mass of learners that one sees the major impact of population education. It is good we believe, that it is so. There are plenty of reasons to suggest that among all the positive changes, it is this innovation which is most capable of provoking and stimulating all the others.

For any information concerning the present Study, please write to :

Population Education Section
Education Sector
UNESCO
Place de Fontenoy
75007 PARIS
France

Mr. Boniface BIYONG,
Chief of Section

Ms. Josyane BLANCHARD
Programme Specialist
"Coordinated Action Programme for the Advancement
of Population Education" (CAPAPE)